

**Final  
Remedial Investigation Report  
Presidio Main Installation**

Presidio of San Francisco

**Volume III  
Figures Sections 1-5**

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Prepared for  
**U.S. Army Environmental Center  
Aberdeen Proving Ground, Maryland 21010-5401**

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Dames and Moore has conducted a Remedial Investigation (RI) of the Presidio of San Francisco (PSF), CA. The objectives of the RI included the determination of the nature and extent of contamination at PSF and to quantify both the human health and ecological risk posed by that contamination. The report concludes that, in general, the Presidio does not pose a significant risk to either human health or the environment. There are, however, a number of locations where elevated risks are present. The remedial actions to abate those risks will be identified in a follow-on document called the "Presidio Main Installation, Feasibility Study".

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## 1. INTRODUCTION

This Final Remedial Investigation (RI) Report presents the results of the Main Installation RI conducted under the direction of the U.S. Army Environmental Center (USAEC), formerly U.S. Army Toxic and Hazardous Materials Agency (USATHAMA) at the Presidio of San Francisco (PSF). This RI report was prepared by Dames & Moore under contract No. DAAA15-90-D-0018 with the USAEC.

Volume III, this volume, of the Final Remedial Investigation Report contains the figures referenced by sections 1 through 5 of the report text in Volume I. Section tabs in this volume correspond to the section tabs in Volume I, making it easy to find the corresponding figure.

The remaining seven volumes contain information as follows: Volume I contains the text of the body of the report. Volume II contains the tables referenced in Volume I. Volume IV contains the figures referenced by section 6 of Volume I. Volume V contains the figures referenced by sections 7 through 15 of Volume I. Volumes VI through VIII contain supporting documentation for the RI in Appendices A through U.

The following report outline shows section and Appendix titles for all eight report volumes and is included in the introduction section of each volume of this RI report.



## 1.1 Report Outline: Final Remedial Investigation Report Presidio Main Installation, Presidio of San Francisco

The following outline lists the major sections in each of the eight volumes of this RI report.

### VOLUME I TEXT

1. Introduction
2. Background
3. Investigation Methods
4. Nike Facility
5. Crissy Field Study Area
6. Building 900s Series Study Area
7. Directorate of Engineering and Housing Study Area
8. Main Post Study Area
9. Fill Sites and Landfills
10. Miscellaneous Sites
11. Golden Gate Bridge Highway and Transportation District Study Area
12. Baker Beach Study Area
13. Battery Howe/Wagner
14. Miscellaneous Follow-on Sites
15. Baseline Risk Assessment
16. References

### VOLUME II TABLES

1. Introduction
2. Background
3. Investigation Methods
4. Nike Facility
5. Crissy Field Study Area
6. Building 900s Series Study Area
7. Directorate of Engineering and Housing Study Area
8. Main Post Study Area
9. Fill Sites and Landfills
10. Miscellaneous Sites
11. Golden Gate Bridge Highway and Transportation District Study Area
12. Baker Beach Study Area
13. Battery Howe/Wagner
14. Miscellaneous Follow-on Sites
15. Baseline Risk Assessment

### VOLUME III FIGURES SECTIONS 1-5

1. Introduction
2. Background
3. Investigation Methods
4. Nike Facility
5. Crissy Field Study Area

### VOLUME IV FIGURES SECTION 6

Introduction

6. Building 900s Series Study Area

### VOLUME V FIGURES SECTIONS 7-15

Introduction

7. Directorate of Engineering and Housing Study Area
8. Main Post Study Area
9. Fill Sites and Landfills
10. Miscellaneous Sites
11. Golden Gate Bridge Highway and Transportation District Study Area
12. Baker Beach Study Area
13. Battery Howe/Wagner
14. Miscellaneous Follow-on Sites
15. Baseline Risk Assessment

### VOLUME VI APPENDICES A-F

Introduction

- A Background/PSF Water Supply
- B Nike Facility
- C Crissy Field Study Area
- D Building 900s Series Study Area
- E DEH Study Area
- F Main Post Study Area

### VOLUME VII APPENDICES G-Q

Introduction

- G Fill Sites and Landfills
- H Miscellaneous Sites
- I Golden Gate Bridge Highway and Transportation District Study Area
- J Baker Beach Study Area
- K Battery Howe/Wagner
- L Miscellaneous Follow-on Sites
- M Physical Properties Data
- N Geophysical Data
- O Well and Sample Data
- P Transducer Study
- Q Fate and Transport Data

### VOLUME VIII APPENDICES R-U

Introduction

- R IRA Data
- S Soil Gas Data
- T QA/QC Program
- U Risk Calculation Spreadsheets



## 1.2 Index of Study Areas, Buildings, and Sites, with Section Numbers

The following index shows where each study area, building, and site is discussed in the RI report. Note, however, that although all listed items are discussed, not all listed items are areas which were investigated in this RI. The index can also be cross referenced with Figure 1.2-1.

For space requirements in the index, and for brevity in the rest of this RI report, the Golden Gate Bridge, Highway, and Transportation District Study Area is abbreviated as GGBHTD Study Area. For the same reasons, the Directorate of Engineering and Housing Study Area is abbreviated as DEH Study Area.

Study Area/Building/Site	RI Report Section
Baker Beach Study Area.....	12. Baker Beach Study Area
Battery Howe/Wagner .....	13. Battery Howe/Wagner
Bone Yard Area .....	11. GGBHTD Study Area
Bridge District Area (see GGBHTD Study Area).....	11. GGBHTD Study Area
Building 1029.....	8. Main Post Study Area
Building 1040.....	8. Main Post Study Area
Building 1057.....	8. Main Post Study Area
Building 1065.....	8. Main Post Study Area
Building 1151.....	8. Main Post Study Area
Building 1152.....	8. Main Post Study Area
Building 1153.....	8. Main Post Study Area
Building 1167.....	8. Main Post Study Area
Building 1244.....	10. Miscellaneous Sites
Building 1245.....	14. Miscellaneous Follow-on Sites
Building 1285.....	13. Battery Howe/Wagner
Building 1287.....	13. Battery Howe/Wagner
Building 1351.....	10. Miscellaneous Sites
Building 1369.....	14. Miscellaneous Follow-on Sites
Building 1388.....	14. Miscellaneous Follow-on Sites
Building 1450.....	4. Nike Facility
Building 1451.....	4. Nike Facility
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Building 201 .....	8. Main Post Study Area
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Building 206 .....	8. Main Post Study Area
Building 207 .....	8. Main Post Study Area
Building 208 .....	8. Main Post Study Area
Building 215 .....	8. Main Post Study Area
Building 228 .....	8. Main Post Study Area
Building 229 .....	8. Main Post Study Area



Study Area/Building/Site	RI Report Section
Building 230 .....	8. Main Post Study Area
Building 231 .....	8. Main Post Study Area
Building 267 .....	7. DEH Study Area
Building 268 .....	7. DEH Study Area
Building 269 .....	7. DEH Study Area
Building 269 .....	7. DEH Study Area
Building 283 .....	7. DEH Study Area
Building 285 .....	7. DEH Study Area
Building 286 .....	7. DEH Study Area
Building 287 .....	7. DEH Study Area
Building 293 .....	7. DEH Study Area
Building 302 .....	14. Miscellaneous Follow-on Sites
Building 609 .....	5. Crissy Field Study Area
Building 611 .....	5. Crissy Field Study Area
Building 633 .....	5. Crissy Field Study Area
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Building 663 .....	10. Miscellaneous Sites
Building 664 .....	10. Miscellaneous Sites
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Building 669 .....	14. Miscellaneous Follow-on Sites
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Building 920 .....	6. Building 900s Series Study Area
Building 923 .....	6. Building 900s Series Study Area
Building 924 .....	6. Building 900s Series Study Area
Building 925 .....	6. Building 900s Series Study Area
Building 926 .....	6. Building 900s Series Study Area
Building 927 .....	6. Building 900s Series Study Area
Building 929 .....	6. Building 900s Series Study Area
Building 930 .....	6. Building 900s Series Study Area
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Building 933 .....	6. Building 900s Series Study Area
Building 934 .....	6. Building 900s Series Study Area
Building 937 .....	6. Building 900s Series Study Area
Building 949 .....	6. Building 900s Series Study Area
Building 950 .....	6. Building 900s Series Study Area
Building 973 .....	6. Building 900s Series Study Area
Building 974 .....	6. Building 900s Series Study Area



Study Area/Building/Site	RI Report Section
Building 976 .....	6. Building 900s Series Study Area
Building 979 .....	6. Building 900s Series Study Area
Building 979 Area .....	6. Building 900s Series Study Area
Building 991 .....	10. Miscellaneous Sites
Building 992 .....	10. Miscellaneous Sites
Building 993 .....	10. Miscellaneous Sites
Building 994 .....	10. Miscellaneous Sites
Building 995 .....	10. Miscellaneous Sites
Building 996 .....	10. Miscellaneous Sites
Building 997 .....	10. Miscellaneous Sites
Building 998 .....	10. Miscellaneous Sites
Building 999 .....	10. Miscellaneous Sites
Consolidated Motor Pool .....	5. Crissy Field Study Area
Crissy Field Study Area .....	5. Crissy Field Study Area
Directorate of Engineering and Housing Study Area .....	7. DEH Study Area
Disturbed Area 1 .....	12. Baker Beach
Disturbed Area 2 .....	12. Baker Beach
Disturbed Area 3 .....	12. Baker Beach
Disturbed Area 4 .....	12. Baker Beach
Disturbed Area E (see Landfill E) .....	9. Fill Sites and Landfills
East of Mason .....	14. Miscellaneous Follow-on Sites
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Fill Site 5 .....	9. Fill Sites and Landfills
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Fill Sites and Landfills .....	9. Fill Sites and Landfills
Fort Point U.S. Coast Guard Station (FPCGS) .....	10. Miscellaneous Sites
GGBHTD Study Area .....	11. GGBHTD Study Area
Graded Area 9 .....	9. Fill Sites and Landfills
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Landfill 2 .....	9. Fill Sites and Landfills
Landfill 3 (see Transfer Station) .....	9. Fill Sites and Landfills
Landfill 4 .....	9. Fill Sites and Landfills
Landfill 5 (see Fill Site 5) .....	9. Fill Sites and Landfills
Landfill 6 (see Fill Site 6) .....	9. Fill Sites and Landfills
Landfill 7 (see Fill Site 7) .....	5. Crissy Field Study Area
Landfill 9 (see Graded Area 9) .....	9. Fill Sites and Landfills
Landfill E .....	9. Fill Sites and Landfills
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Letterman Army Medical Center .....	2. Background
Lobos Creek .....	10. Miscellaneous Sites
Main Post Study Area .....	8. Main Post Study Area
Miscellaneous Follow-on Sites .....	14. Miscellaneous Follow-on Sites
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Mountain Lake .....	10. Miscellaneous Sites
Nike Facility .....	4. Nike Facility



Study Area/Building/Site	RI Report Section
Paint Operations Area.....	11. GGBHTD Study Area
POL Area.....	5. Crissy Field Study Area
Sewer Lift Station 1.....	5. Crissy Field Study Area
Sewer Lift Station 2.....	5. Crissy Field Study Area
Silo 1.....	4. Nike Facility
Silo 2.....	4. Nike Facility
Silo 3.....	4. Nike Facility
Transfer Station.....	9. Fill Sites and Landfills
Transformer Area .....	11. GGBHTD Study Area
UST Area .....	11. GGBHTD Study Area
Vehicle Maintenance Area.....	6. Building 900s Series Study Area



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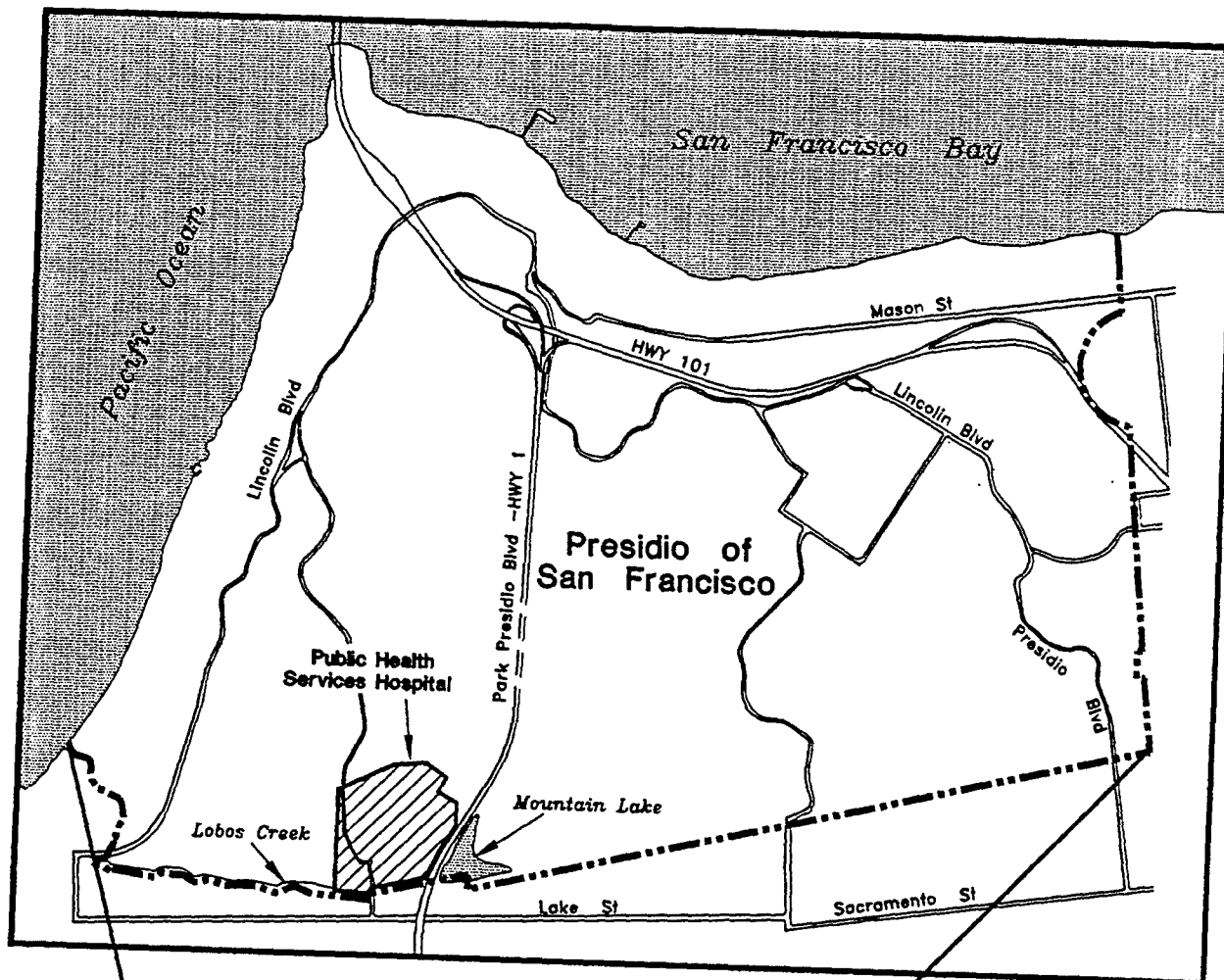


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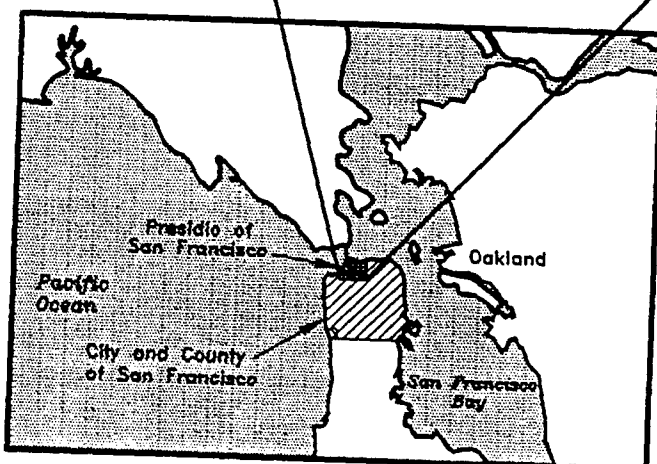


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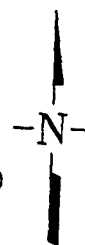


----- Presidio of San Francisco Boundary



**San Francisco Bay Area**  
Not Drawn to Scale

0 2000  
SCALE IN FEET



 **DAMES & MOORE**

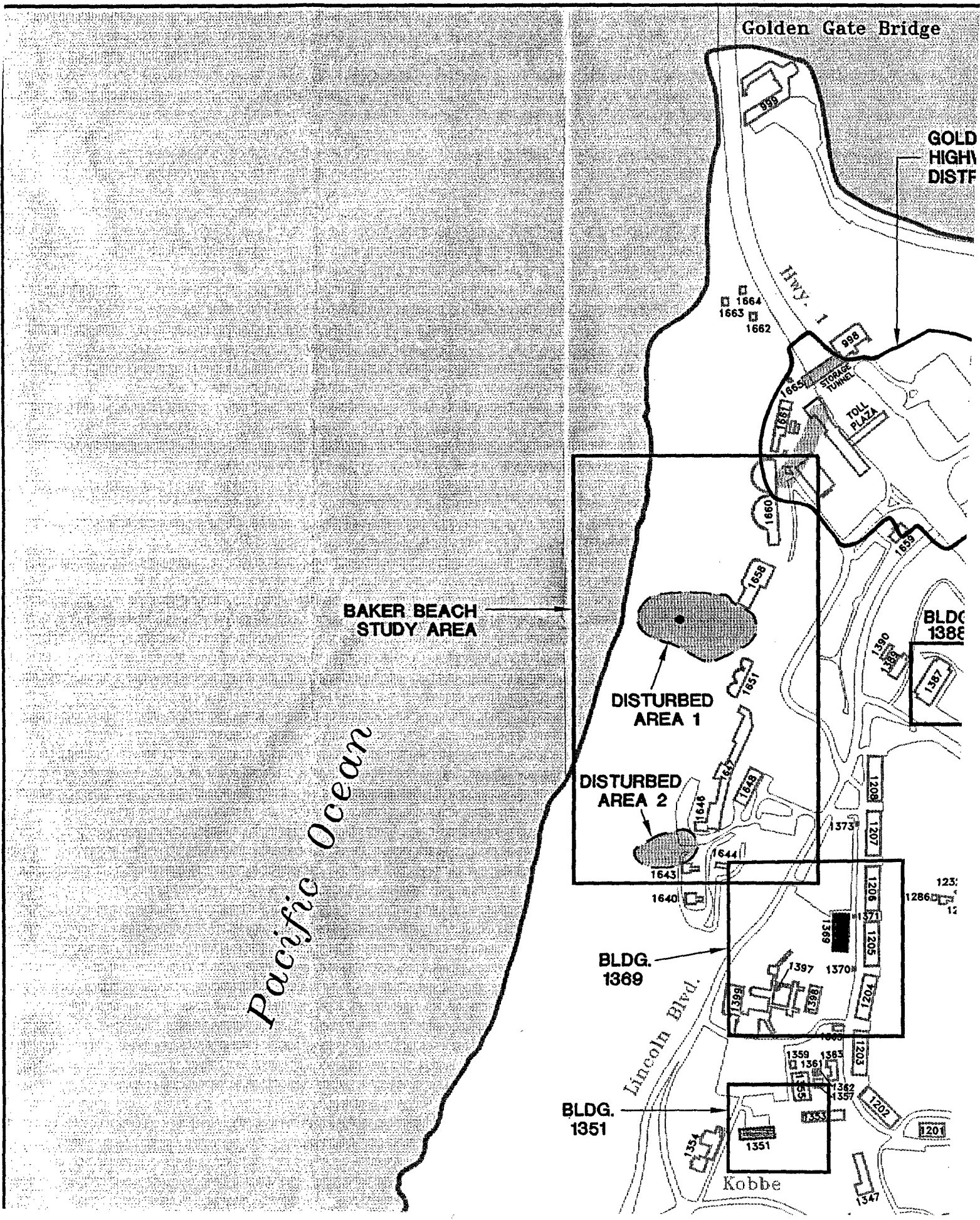
**PRESIDIO OF SAN FRANCISCO  
SITE LOCATION MAP**

PSF25184\DV3

Date: January 1997

Figure 1.1-1





Golden Gate Bridge

GOLD  
HIGH  
DISTRICT

HWY. 1

1664  
1663  
1662

STORAGE  
TUNNEL

TOLL  
PLAZA

BAKER BEACH  
STUDY AREA

DISTURBED  
AREA 1

DISTURBED  
AREA 2

BLDG.  
1388

BLDG.  
1369

BLDG.  
1351

Lincoln Blvd.

Kobbe

*Pacific Ocean*



Bridge

GOLDEN GATE BRIDGE,  
HIGHWAY AND TRANSPORTATION  
DISTRICT (GGBHTD) STUDY AREA

BUILDING 900s  
SERIES STUDY AREA

FORT POINT  
U.S. COAST GUARD  
STATION (FPCGS)

BLDG.  
1388

BATTERY  
HOWE/WAGNER

BLDG.  
662

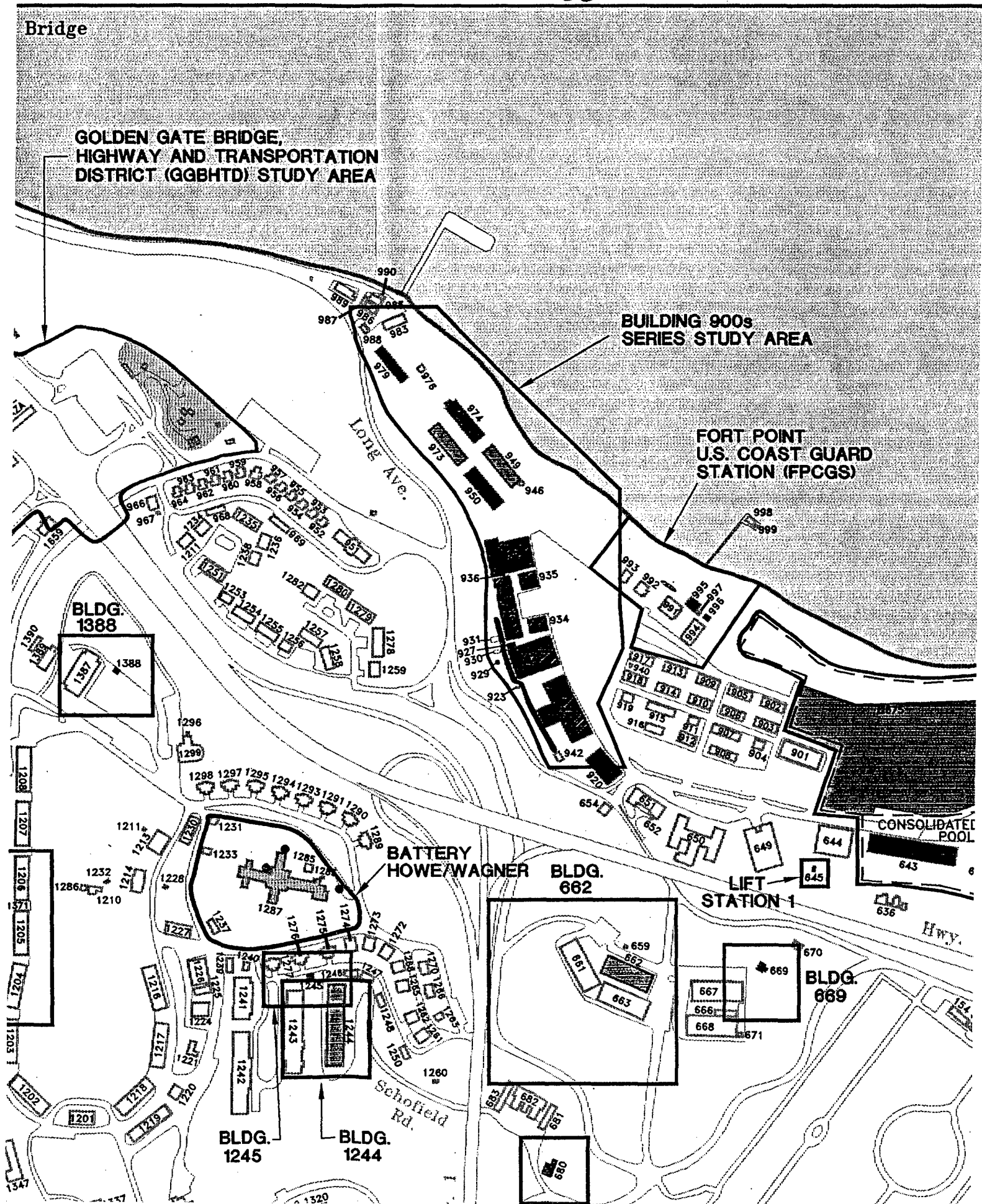
LIFT  
STATION 1

CONSOLIDATED  
POOL

BLDG.  
1245

BLDG.  
1244

BLDG.  
669





# San Francisco Bay

EAST OF MASON (EOM)

CRISSY FIELD  
STUDY AREA

FILL SITE 7  
BOUNDARY

POL AREA

CONSOLIDATED MOTOR  
POOL AREA

BUILDING  
633 AREA

BUILDING  
611

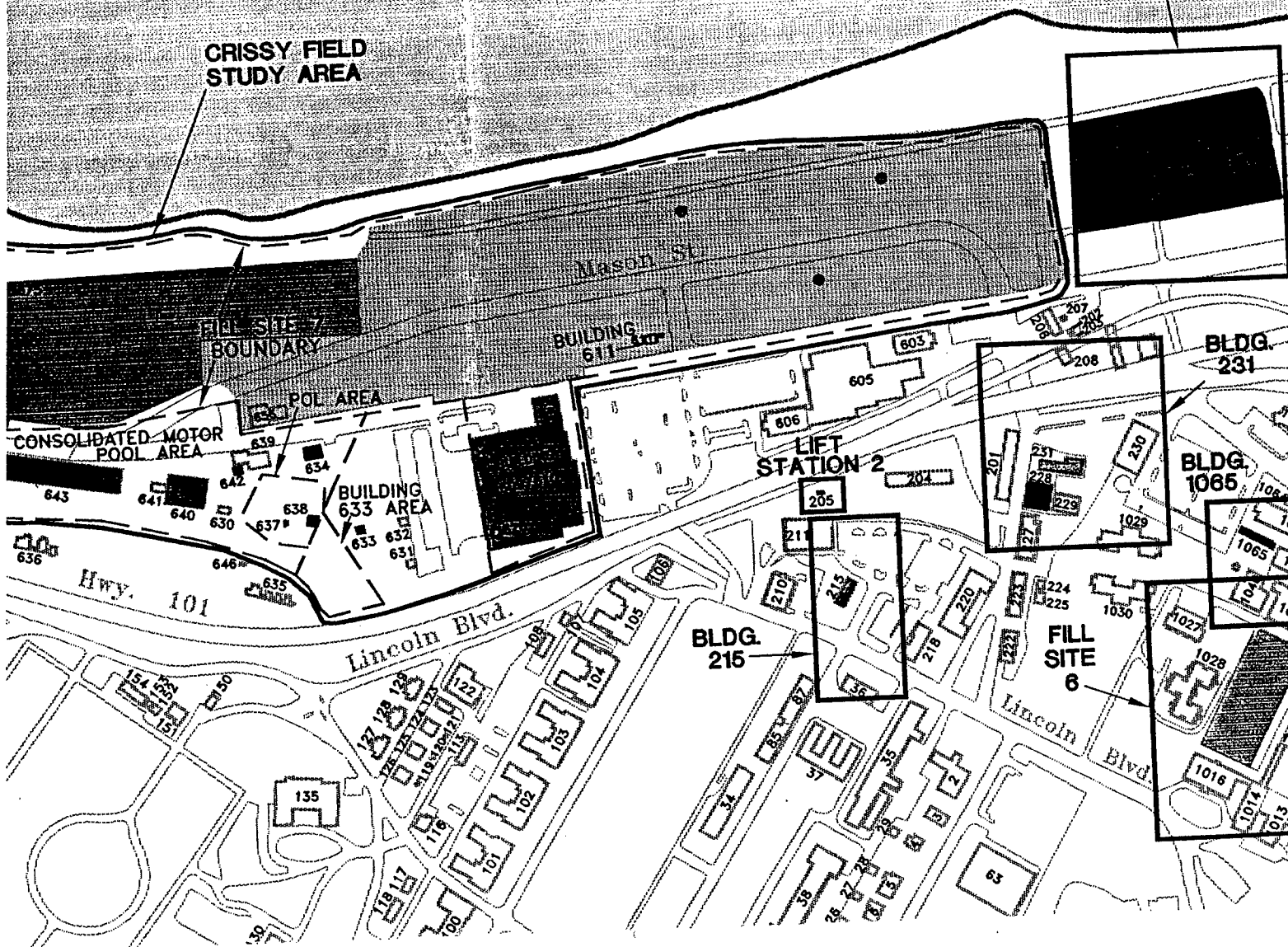
LIFT  
STATION 2

BLDG.  
215

FILL  
SITE  
6

BLDG.  
231

BLDG.  
1065





EX

DIRECTORATE OF  
ENGINEERING AND HOUSING  
(DEH) STUDY AREA

AST OF MASON (EOM)



Site Map Outline

Vicinity of RI Sampling



Initial RI



Supplemental RI



Follow-On RI



Initial and Supplemental



Initial and Follow-On

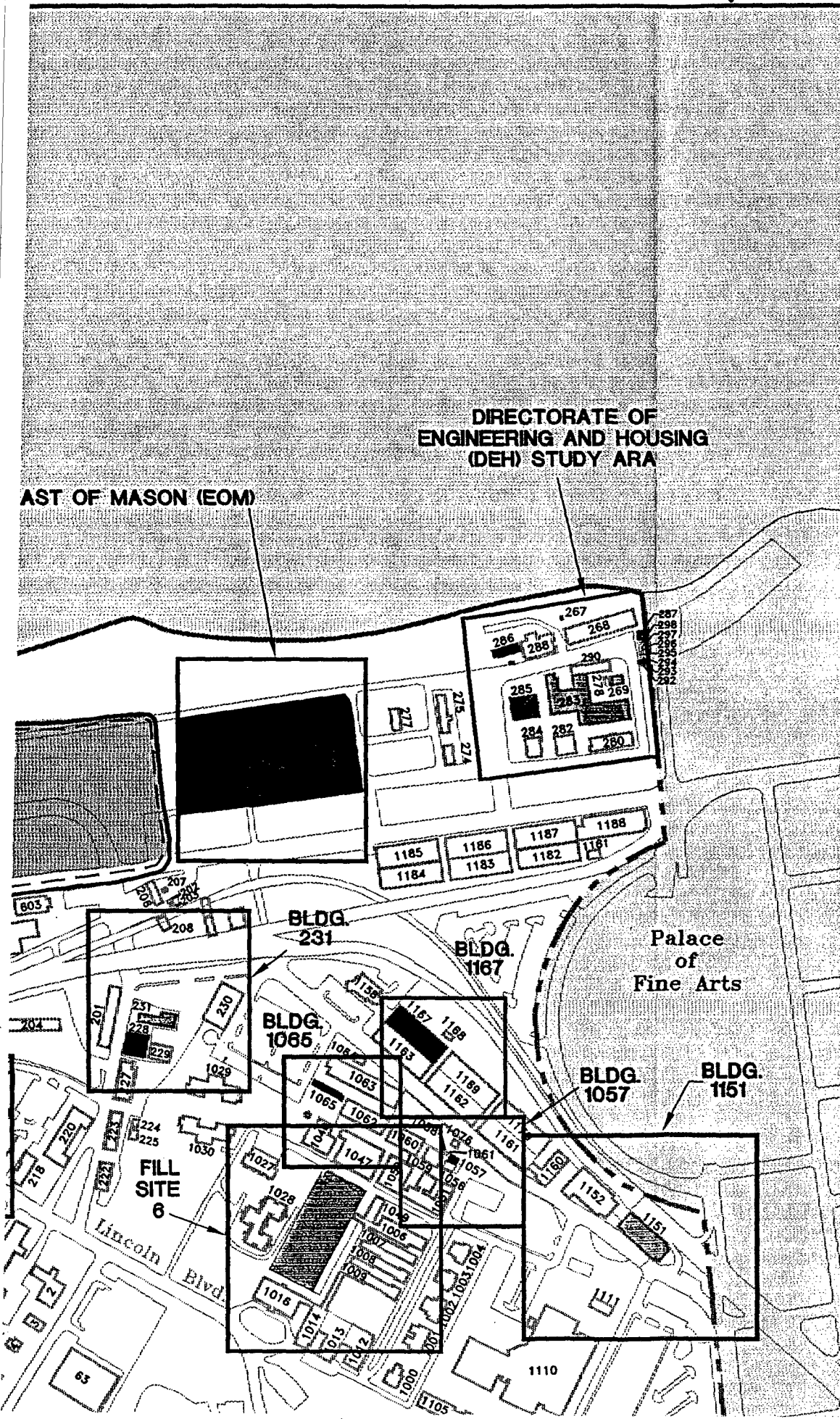


Supplemental and Follow-On



Initial, Supplemental, and Follow-On

RI Groundwater	
Study Area/Site	
Nike Facility	
Crissy Field + Study Area	
Building 900s +	





**EXPLANATION**

Site Map Outline

**Vicinity of RI Sampling Excluding Groundwater Sampling**

Initial RI



Supplemental RI



Follow-On RI



Initial and Supplemental RI



Initial and Follow-On RI



Supplemental and Follow-On RI



Initial, Supplemental, and Follow-On RI

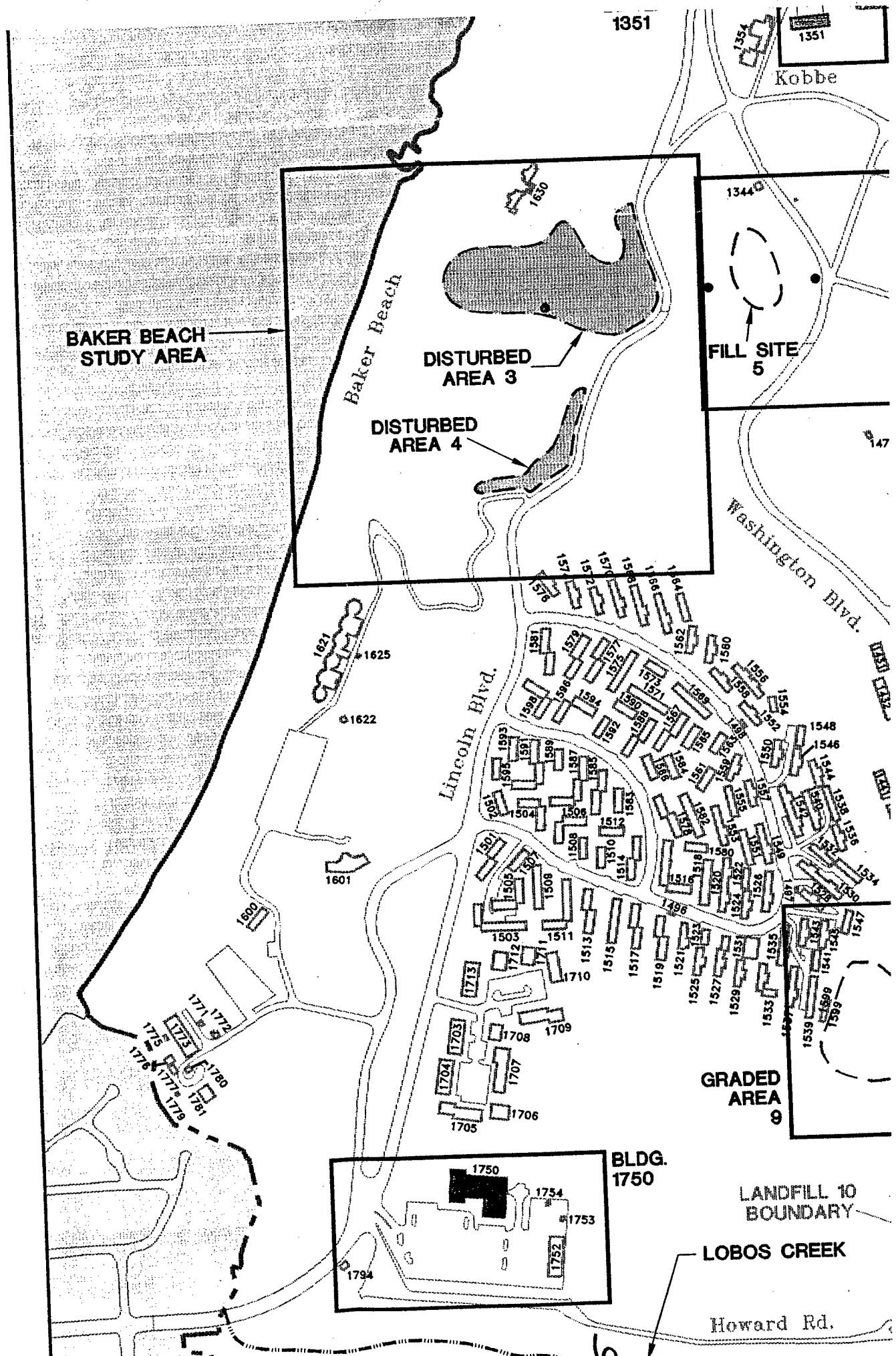
RI Groundwater Monitoring Well Sampling			
Study Area/Site	Initial	Supplemental	Follow-On
Nike Facility	-	I,S	I,S
Crissy Field + Study Area	I,S	I,S	S
Building 900s +	I,S	I,S	I,S

ING

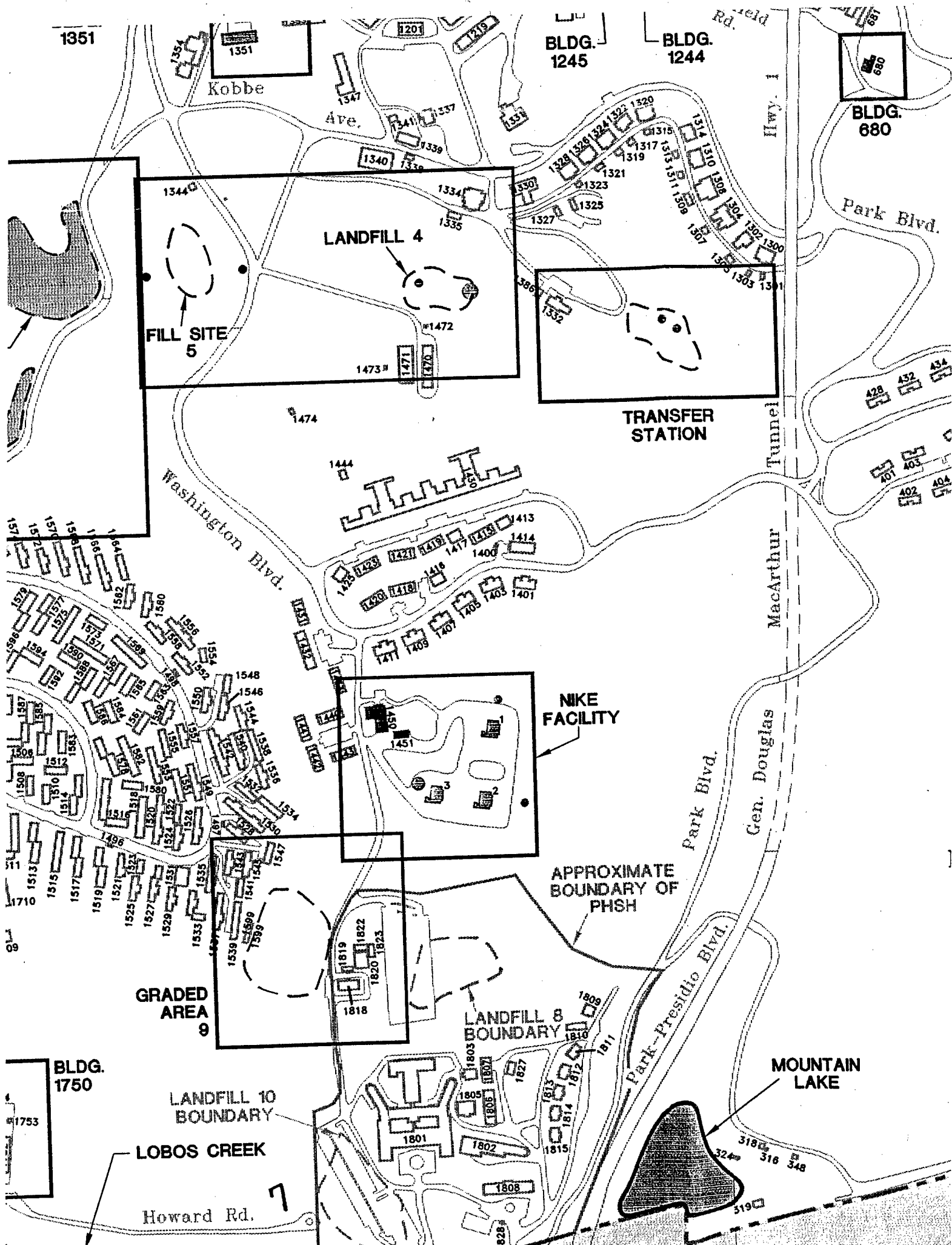
BLDG. 1151

Palace  
of  
the ArtsBLDG.  
1151

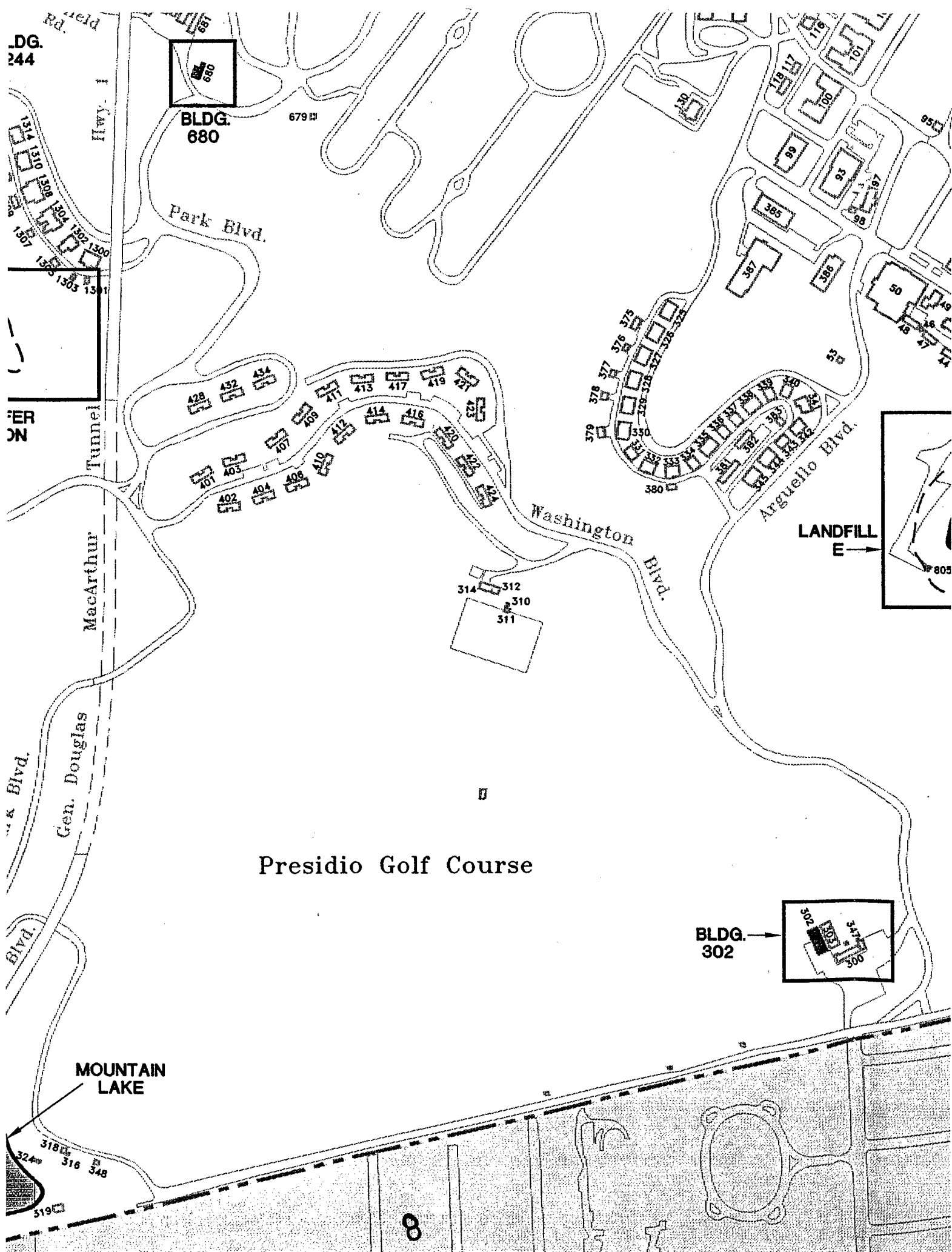












D.G.  
244

BLDG.  
680

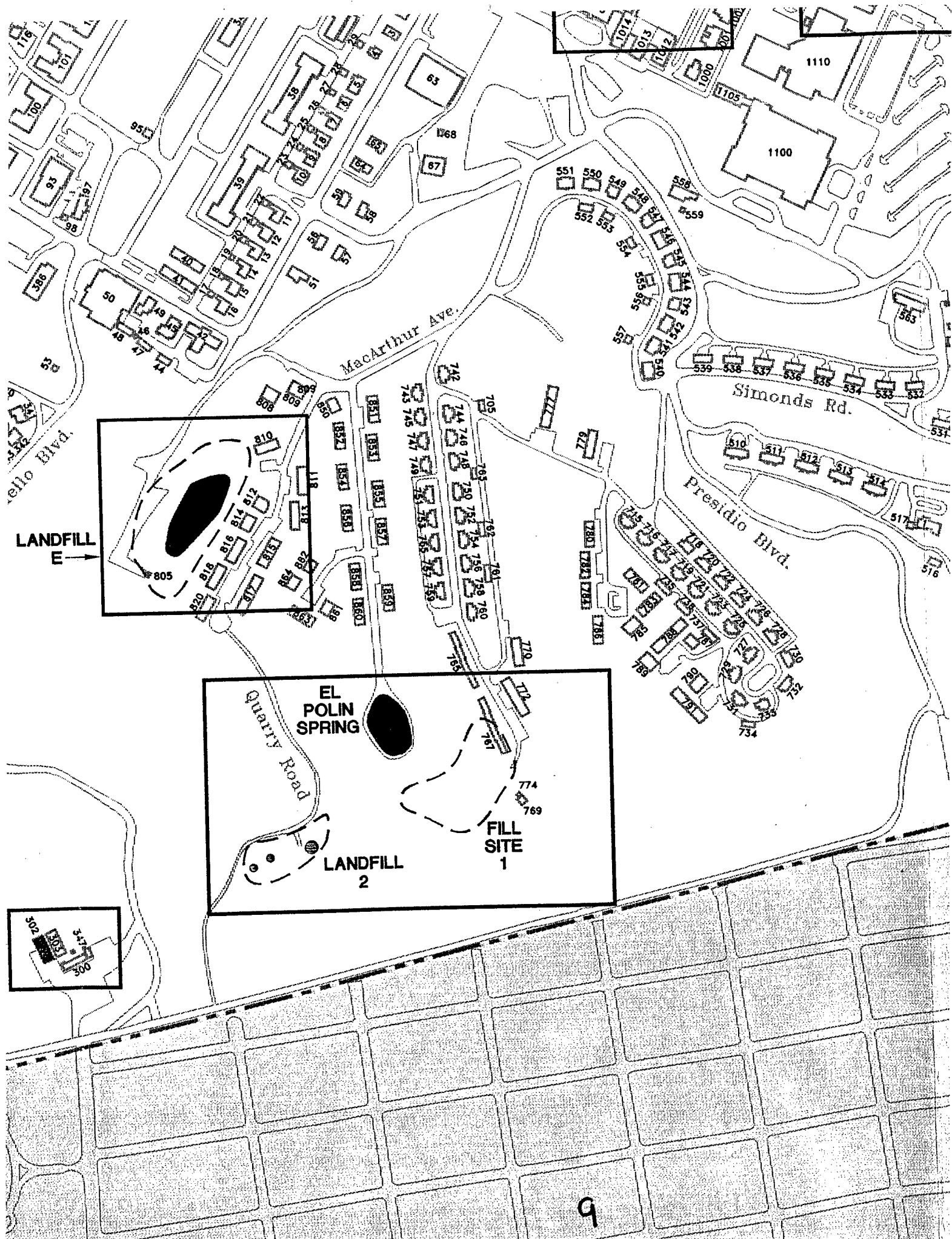
BLDG.  
302

LANDFILL  
E

Presidio Golf Course

MOUNTAIN  
LAKE





LANDFILL  
E →

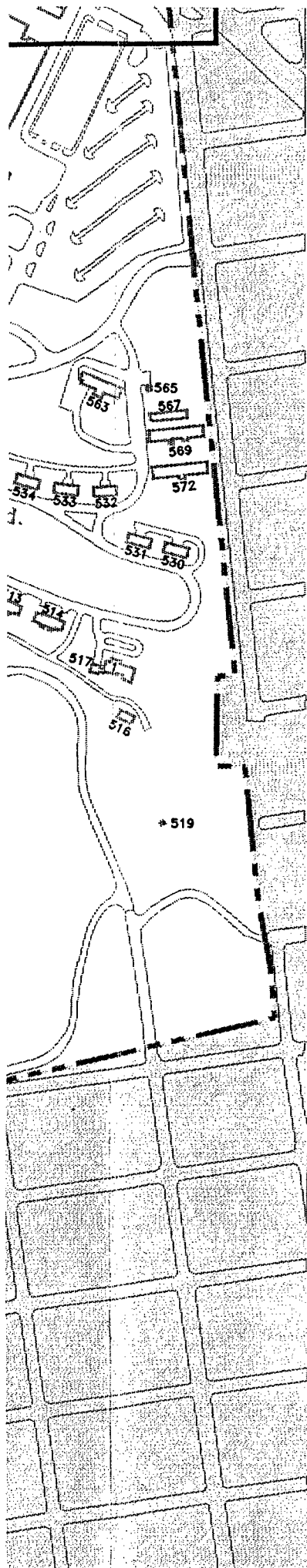
EL  
POLIN  
SPRING

LANDFILL  
2

FILL  
SITE  
1

9





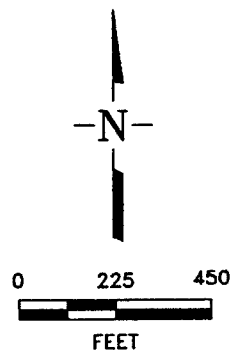
Nike Facility	-	I,S	I,S
Crissy Field + Study Area	I,S	I,S	S
Building 900s + Series Study Area	I,S	I,S	I,S
DEH Study Area	-	I,S	S
Building 215	I,S	-	S
Building 231 +	I,S	-	-
Fill Site 1	I,S	I,S	I,S
Landfill 2	I,S,NG	S	I,S,NG
Transfer Station	-	-	NG
Landfill 4	NG	-	I,S,NG
Fill Site 5	NG	-	NG
Landfill E	NG	I,S	I,S
FPCGS	-	I,S	S
GGBHTD Study Area	-	I,S	-
Battery Howe/Wagner	-	I,S,NG	S

I = Installed Monitoring Well

S = Sampled Monitoring Well

NG = No groundwater encountered during attempt to install monitoring well

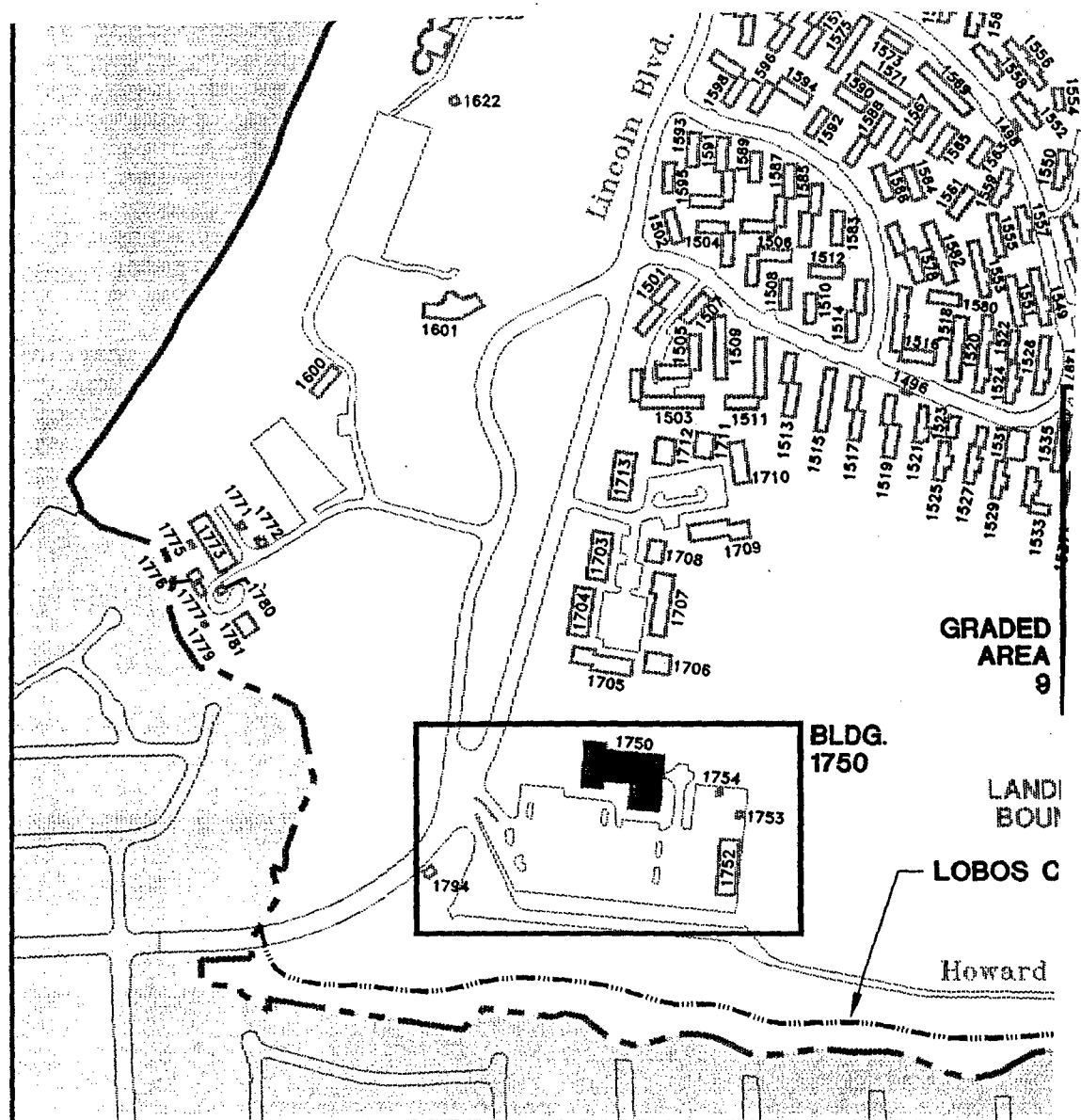
+ = Selected wells are monitored quarterly under separate program



**DAMES & MOORE**

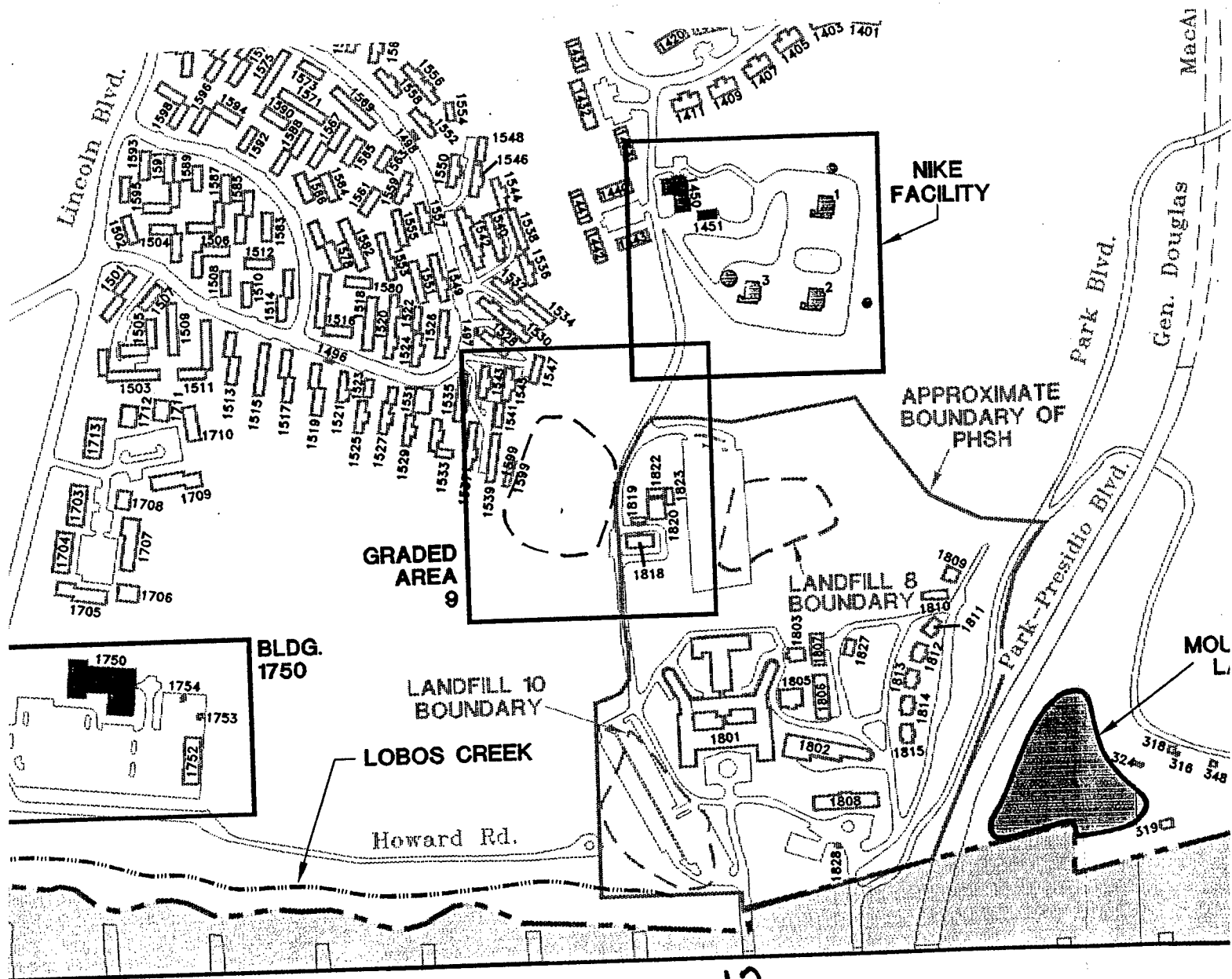
**REMEDIAL INVESTIGATION  
STUDY AREA/SITE LOCATIONS  
AND SAMPLE HISTORY,  
PRESIDIO OF SAN FRANCISCO**



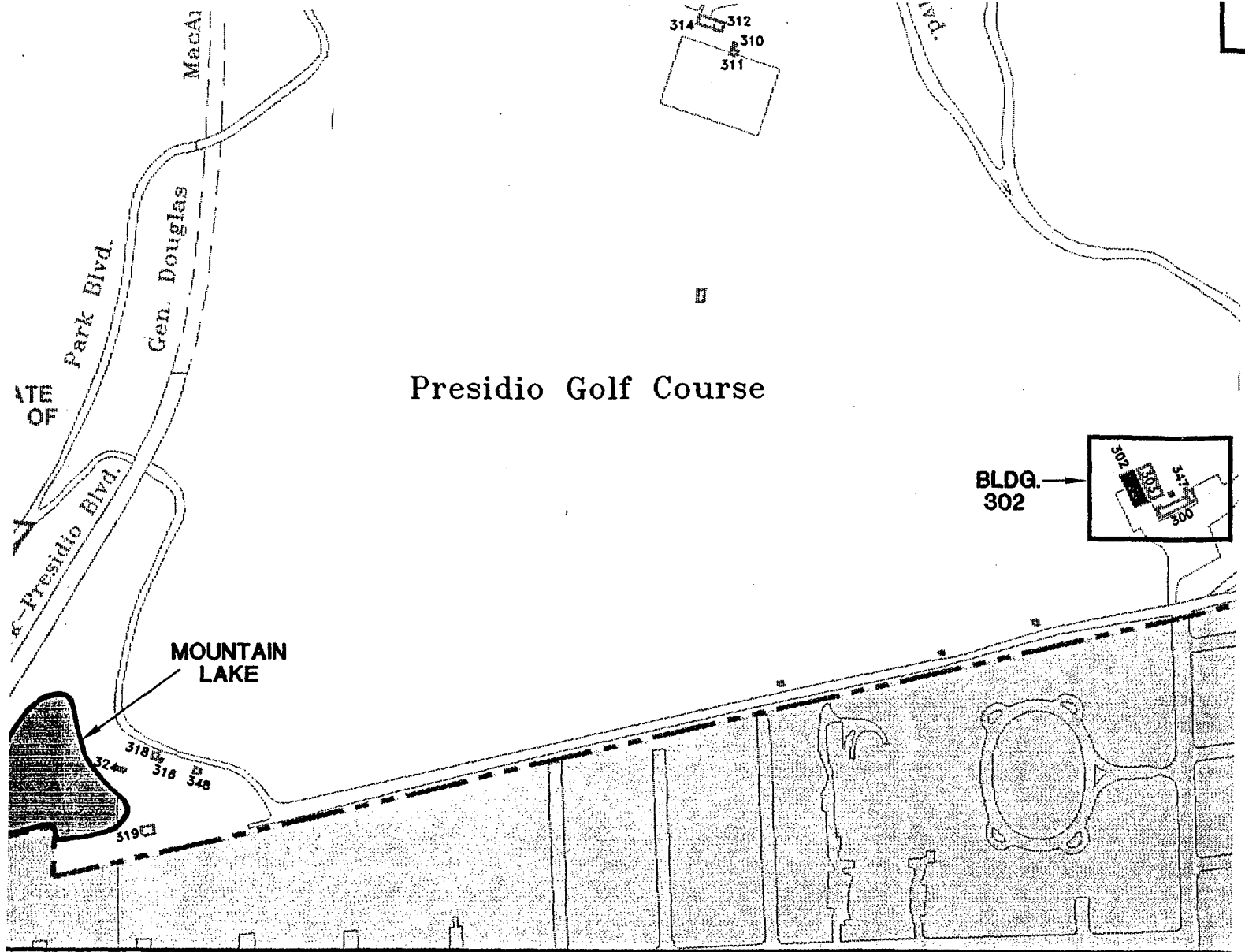


11



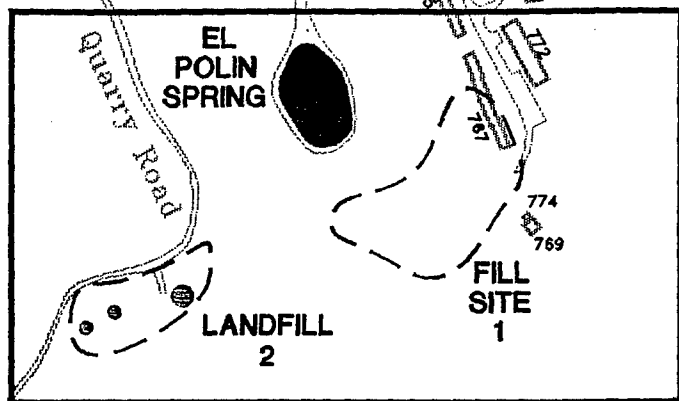






13





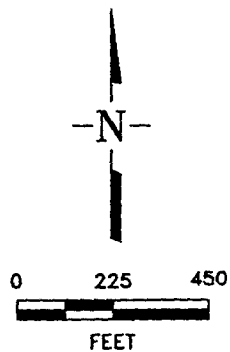




S = Sampled Monitoring Well

NG = No groundwater encountered during attempt to install monitoring well

+ = Selected wells are monitored quarterly under separate program



**DAMES & MOORE**

**REMEDIAL INVESTIGATION  
STUDY AREA/SITE LOCATIONS  
AND SAMPLE HISTORY,  
PRESIDIO OF SAN FRANCISCO**

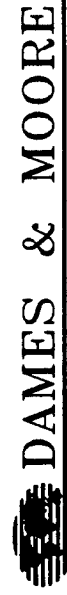
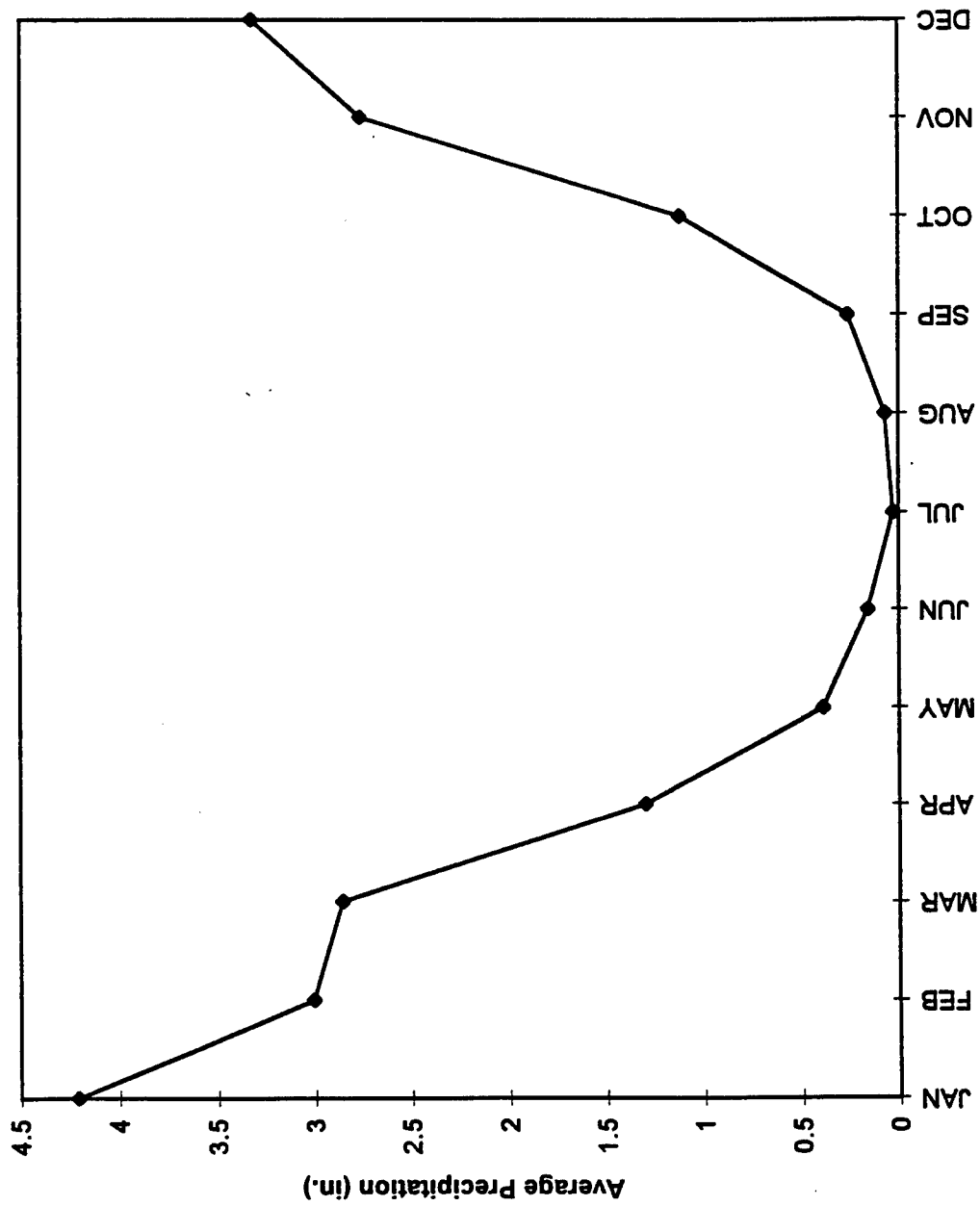
PSF25063\DV1

Date: January 1997

Figure 1.2-1



(Based on Data From Table 2.3-1)



AVERAGE TOTAL MONTHLY  
PRECIPITATION FOR 1951-1994  
SAN FRANCISCO, CALIFORNIA

PSF25161/DV2

Date: January 1997

Figure 2.3-1

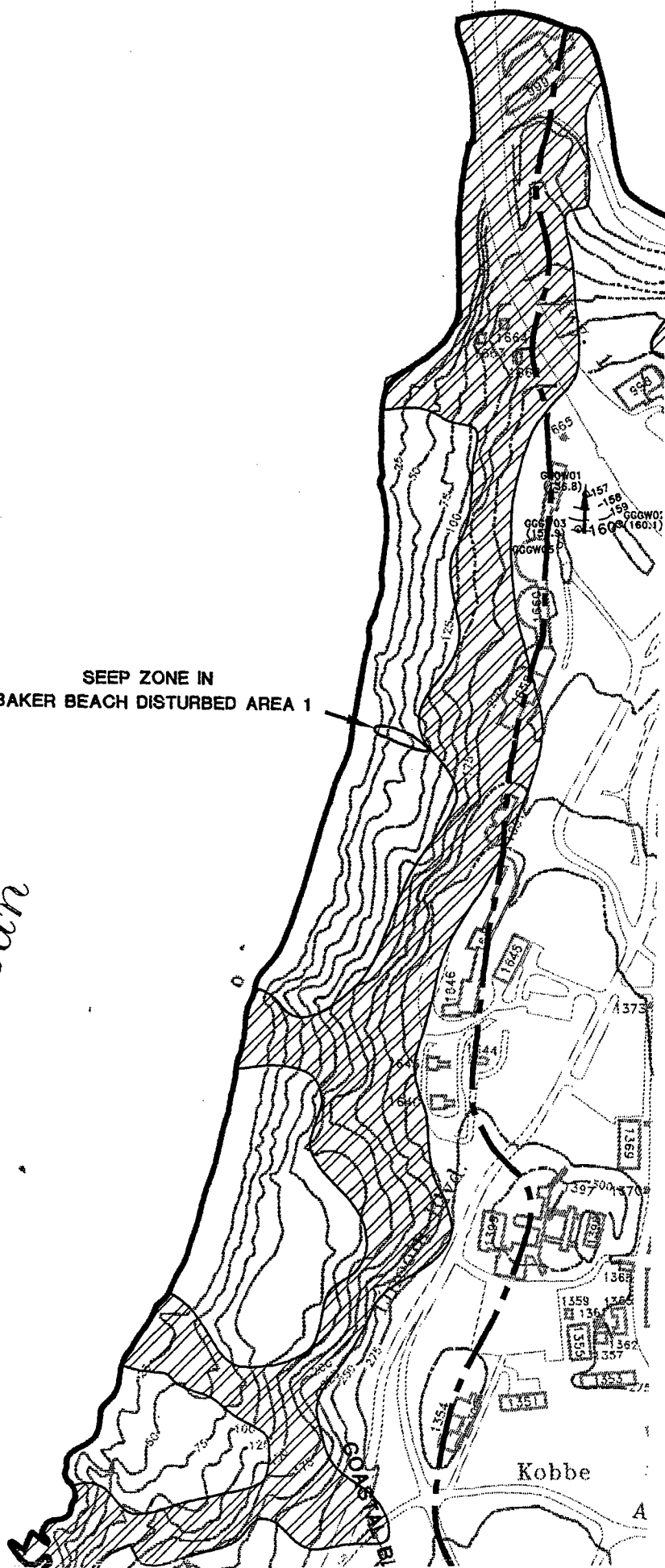


Golden Gate

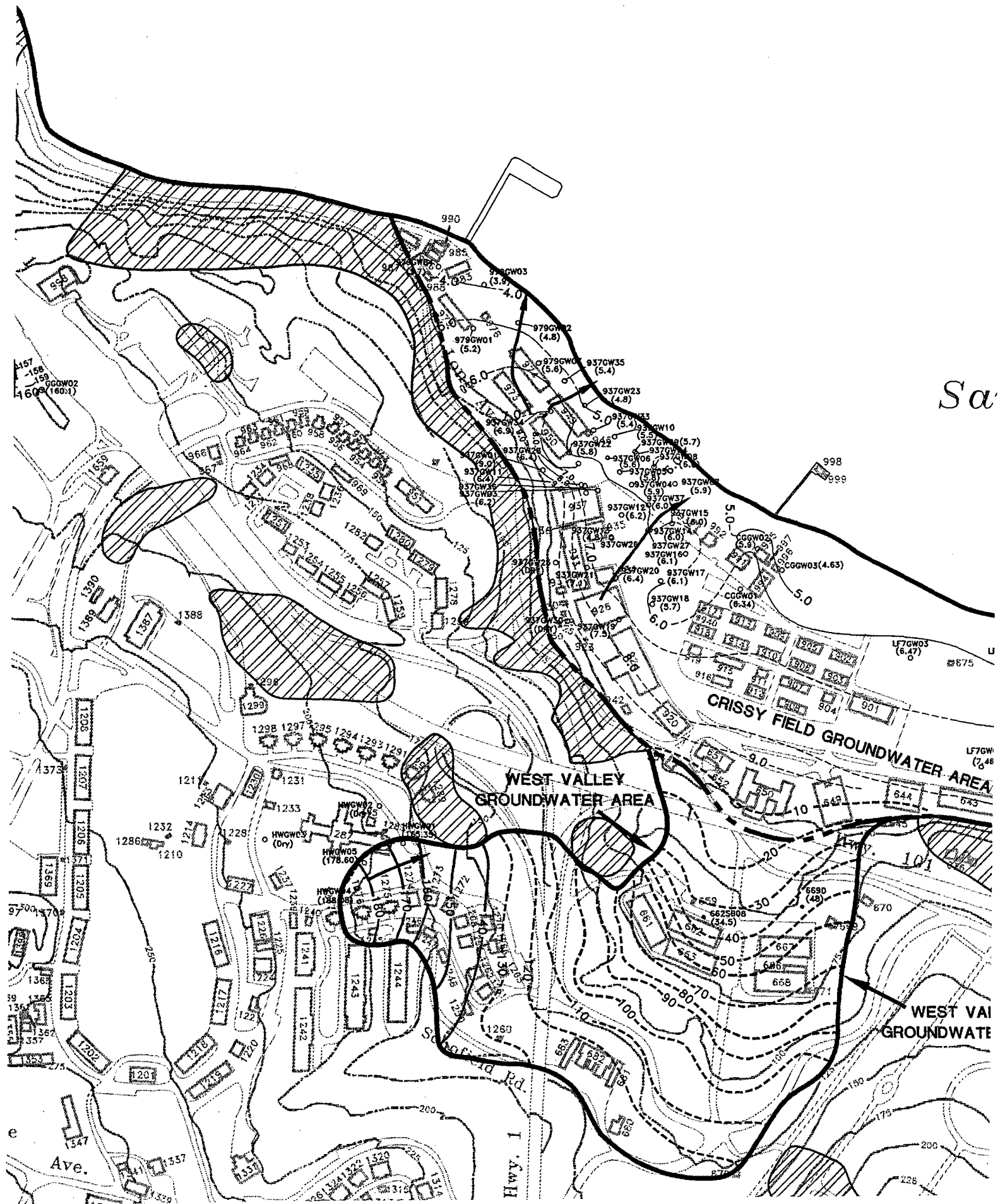
SEEP ZONE IN  
BAKER BEACH DISTURBED AREA 1

*Pacific Ocean*

Kobbe







Sa

CRISSY FIELD GROUNDWATER AREA

WEST VALLEY GROUNDWATER AREA

WEST VAL GROUNDWATER

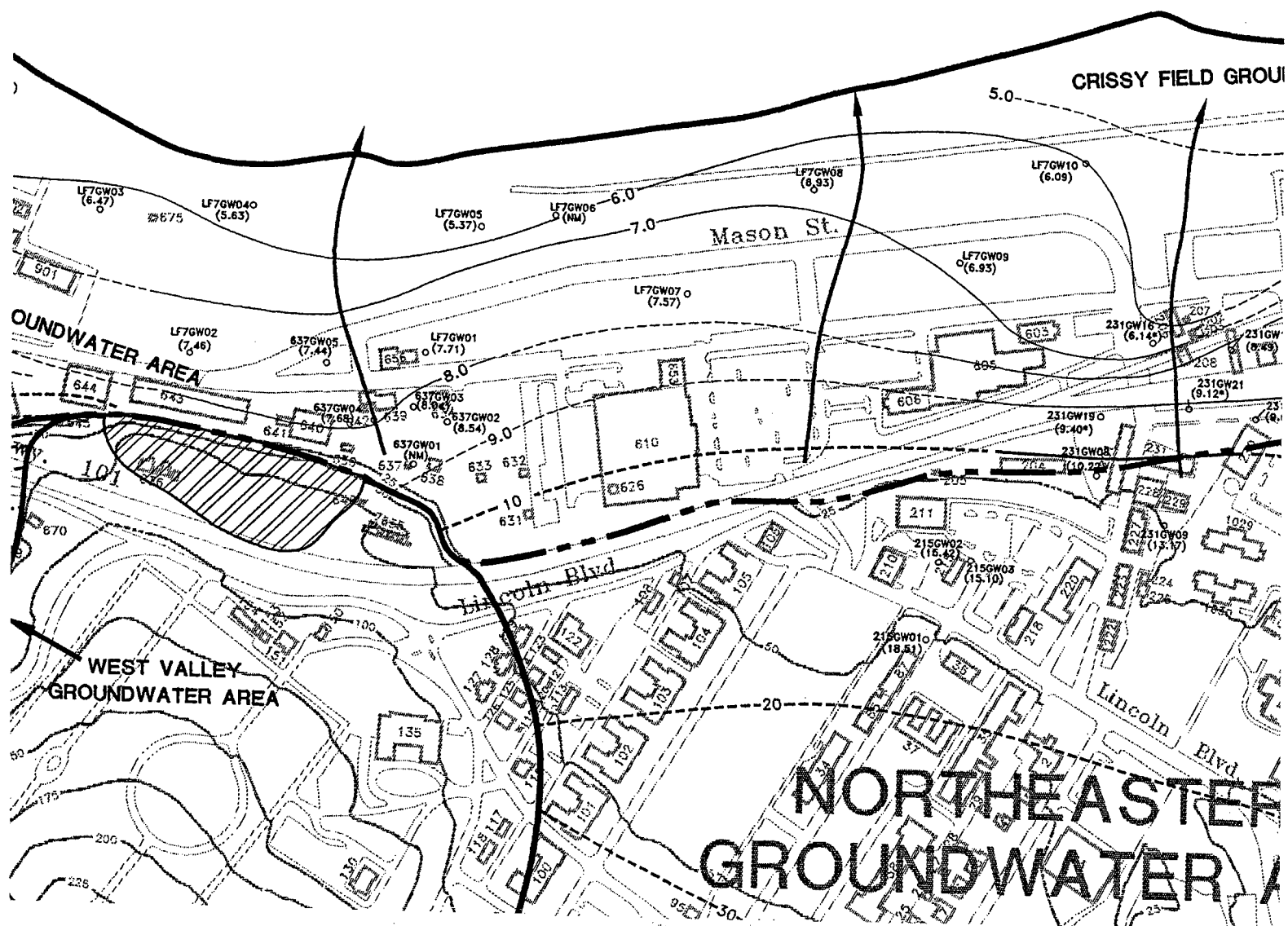
Hwy. 1

Ave.

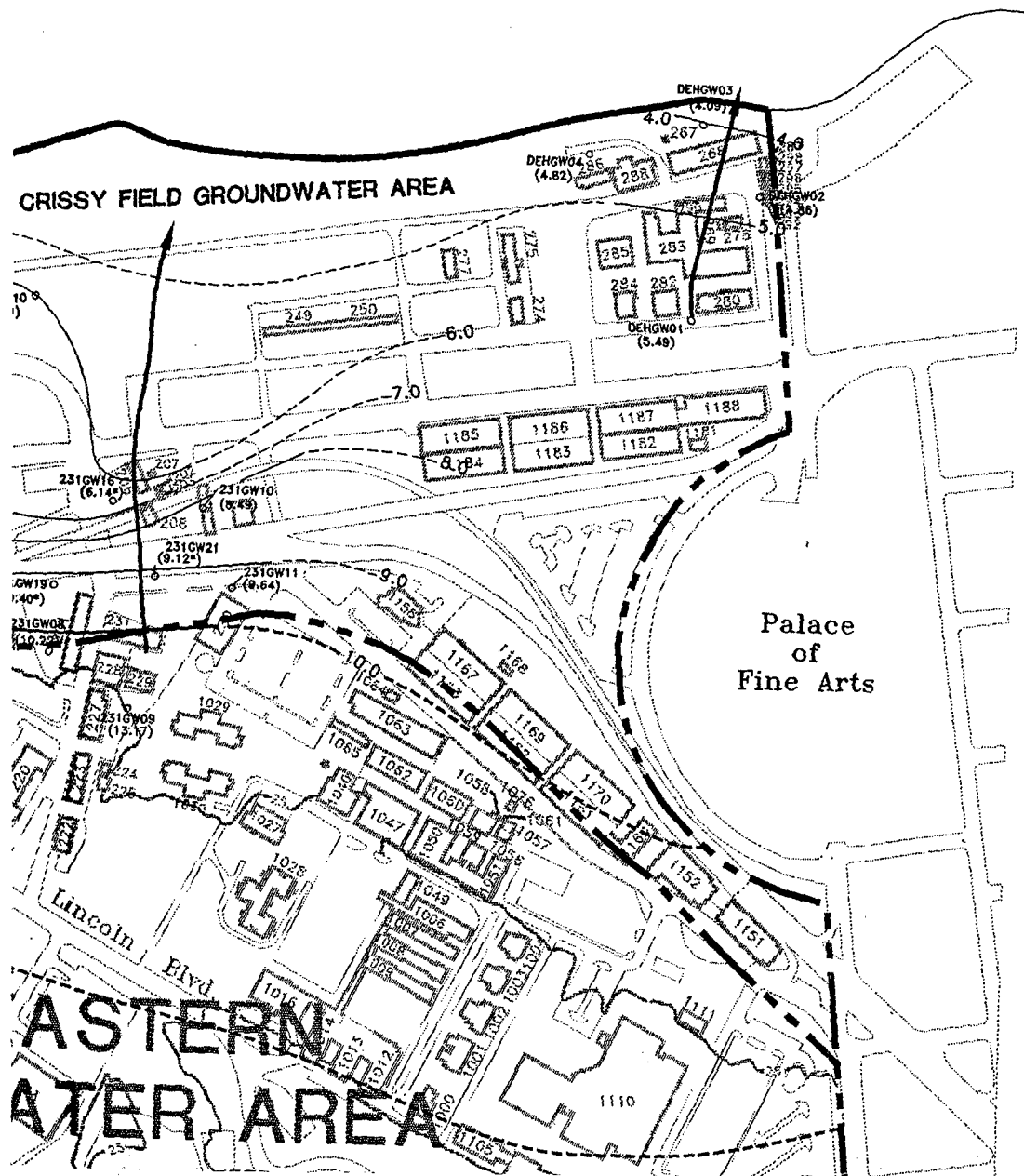


# San Francisco Bay

3  
19







- MONITORING WE
- SOIL BORING
- (4.09) POTENTIOMETRIC GROUNDWATER (NM): NOT MEA
- (9.40\*) WATER LEVEL D THEREFORE, EQ ADJUSTING WAT FLUCTUATIONS (
- 24.7 □ MONITORING WEI BY NOLTE & AS
- (47.37) △ MONITORING WEI FOR WETLANDS
- GENERAL GROUND
- ESTIMATED LIMIT UNCONSOLIDATED
- - - GROUNDWATER B
- . - - CRISSY FIELD GR
- - - BOUNDARY OF LC CALIFORNIA REGI ORDER NO. 96-C
- ▨ AREA OF BEDROCK
- 60 - - - POTENTIOMETRIC GROUNDWATER (D CONTOUR INTERVA
- 5.0 - - - POTENTIOMETRIC : GROUNDWATER IN (DASHED WHERE
- 200 - - - TOPOGRAPHIC CON
- ALL ELEVATIONS I



## EXPLANATION

- MONITORING WELL
- SOIL BORING
- (4.09) POTENTIOMETRIC SURFACE ELEVATION OF FIRST-ENCOUNTERED  
GROUNDWATER MEASURED IN MARCH OR APRIL 1995.  
(NM): NOT MEASURED. ESTIMATED IN SOIL BORINGS.
- (9.40\*) WATER LEVEL DATA FOR LOW TIDE ON 3/16/95 WERE NOT AVAILABLE;  
THEREFORE, EQUIVALENT WATER LEVELS WERE ESTIMATED BY  
ADJUSTING WATER LEVELS MEASURED AT HIGH TIDE ON 4/14/95 BY  
FLUCTUATIONS OBSERVED IN ADJACENT WELLS.
- 24.7  
□ MONITORING WELL AND WATER LEVEL MEASURED IN DECEMBER 1991  
BY NOLTE & ASSOCIATES (1993)
- (47.37)  
△ MONITORING WELL AND WATER LEVEL MEASURED MARCH 9, 1994  
FOR WETLANDS FEASIBILITY STUDY, DAMES & MOORE (1995b)


————→ GENERAL GROUNDWATER FLOW DIRECTION

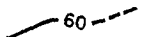
———— ESTIMATED LIMIT OF GROUNDWATER IN  
UNCONSOLIDATED MATERIALS

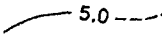
— — — — GROUNDWATER BASIN DIVIDE

— · · · — CRISSY FIELD GROUNDWATER AREA BOUNDARY

— — — — BOUNDARY OF LOBOS CREEK GROUNDWATER AREA, TAKEN FROM  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
ORDER NO. 96-070. SEE TEXT DISCUSSION IN SECTION 2.3.5.

 AREA OF BEDROCK OUTCROP

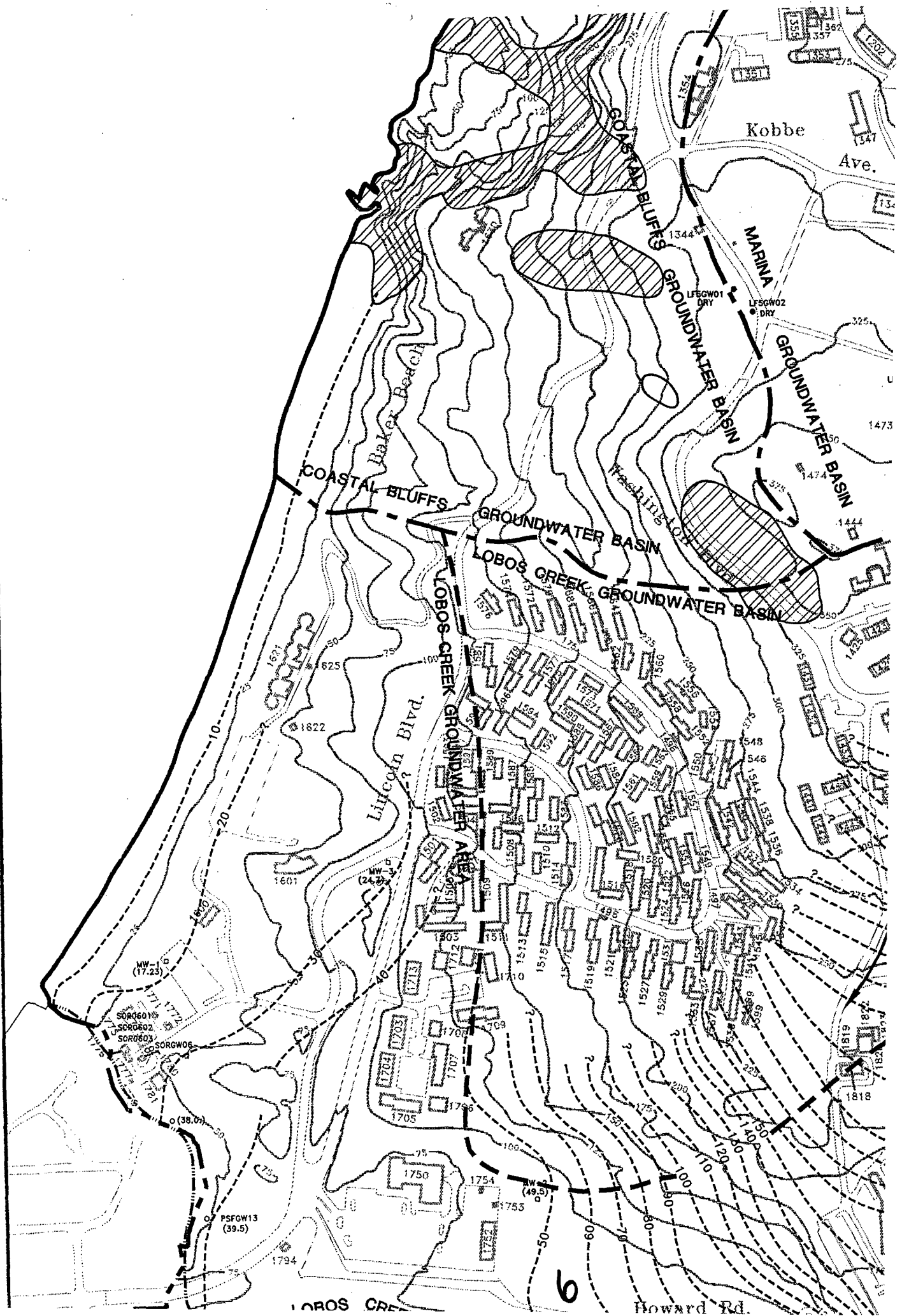
 60 — POTENTIOMETRIC SURFACE CONTOUR OF FIRST-ENCOUNTERED  
GROUNDWATER (DASHED WHERE INFERRED).  
CONTOUR INTERVAL: 10 FEET

 5.0 — POTENTIOMETRIC SURFACE CONTOUR OF FIRST-ENCOUNTERED  
GROUNDWATER IN CRISSY FIELD GROUNDWATER AREA  
(DASHED WHERE INFERRED). CONTOUR INTERVAL: 1 FEET

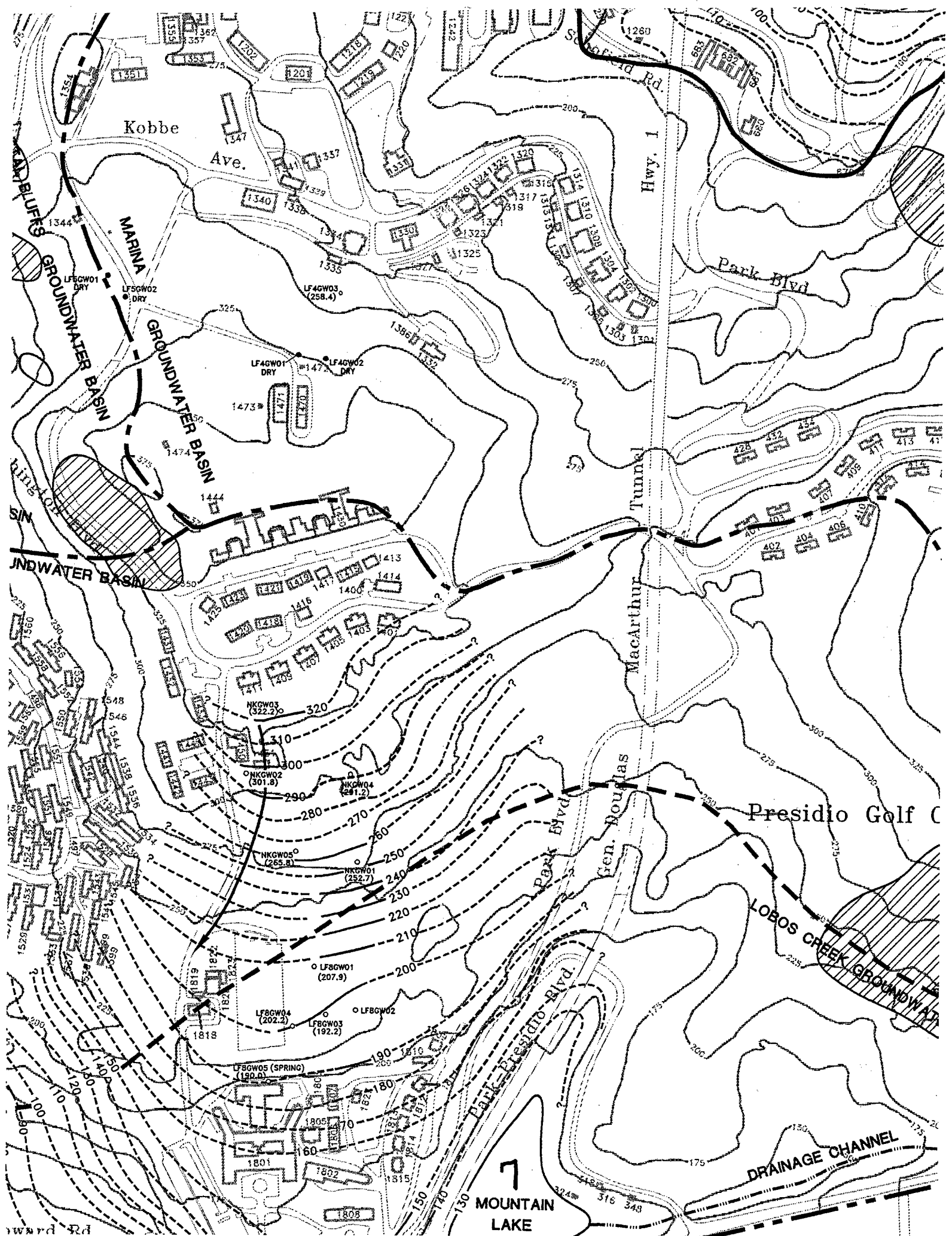
 200 — TOPOGRAPHIC CONTOUR. CONTOUR INTERVAL: 25 FEET

ALL ELEVATIONS IN FEET—PRESIDIO LOWER LOW WATER









Kobbe

Ave.

MARINA

GROUNDWATER BASIN

GROUNDWATER BASIN

GROUNDWATER BASIN

Hwy. 1

Park Blvd

Tunnel

MacArthur

Gen. Douglas

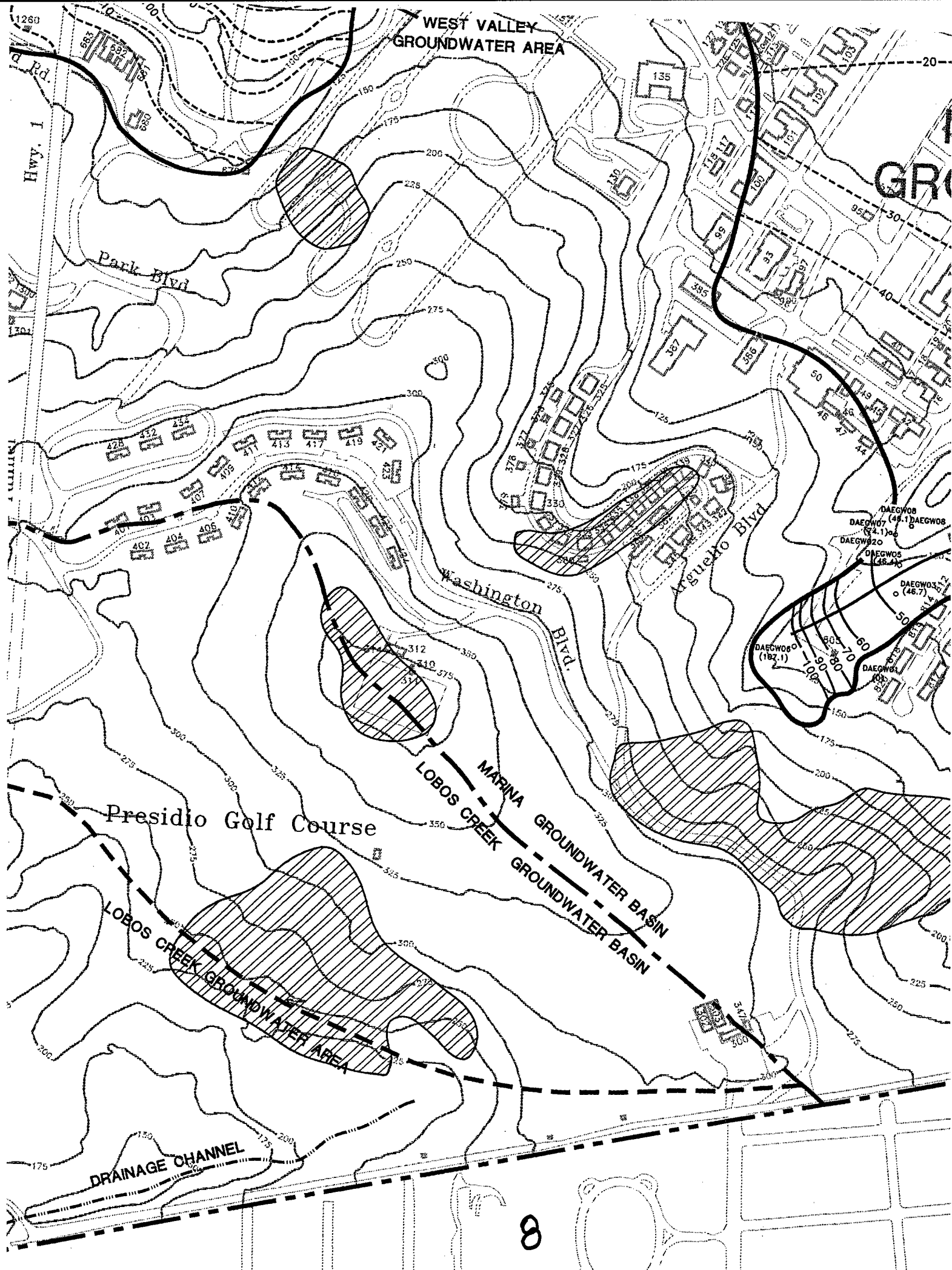
Presidio Golf C

LOBOS CREEK

DRAINAGE CHANNEL

7  
MOUNTAIN  
LAKE







**NORTHEASTERN  
GROUNDWATER AREA**

Lincoln Blvd

MacArthur Ave

DAEGW08 (46.1)

DAEGW07 (74.1)

DAEGW02 (45.4)

DAEGW05 (45.4)

DAEGW04 (45.5)

DAEGW03 (46.7)

DAEGW01 (101.1)

LF1GW03 (70.3)

LF1GW02 (65.1)

LF1GW08 (74.5)

LF1GW01 (100.6)

LF1GW03 (100.1)

LF1GW04 (99.4)

LF1GW07 (102.1)

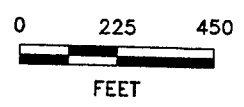
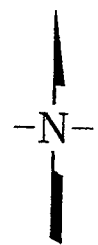
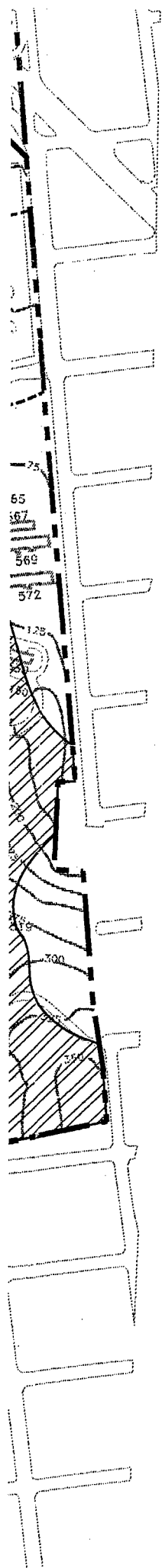
LF2GW04 (159.4)

9

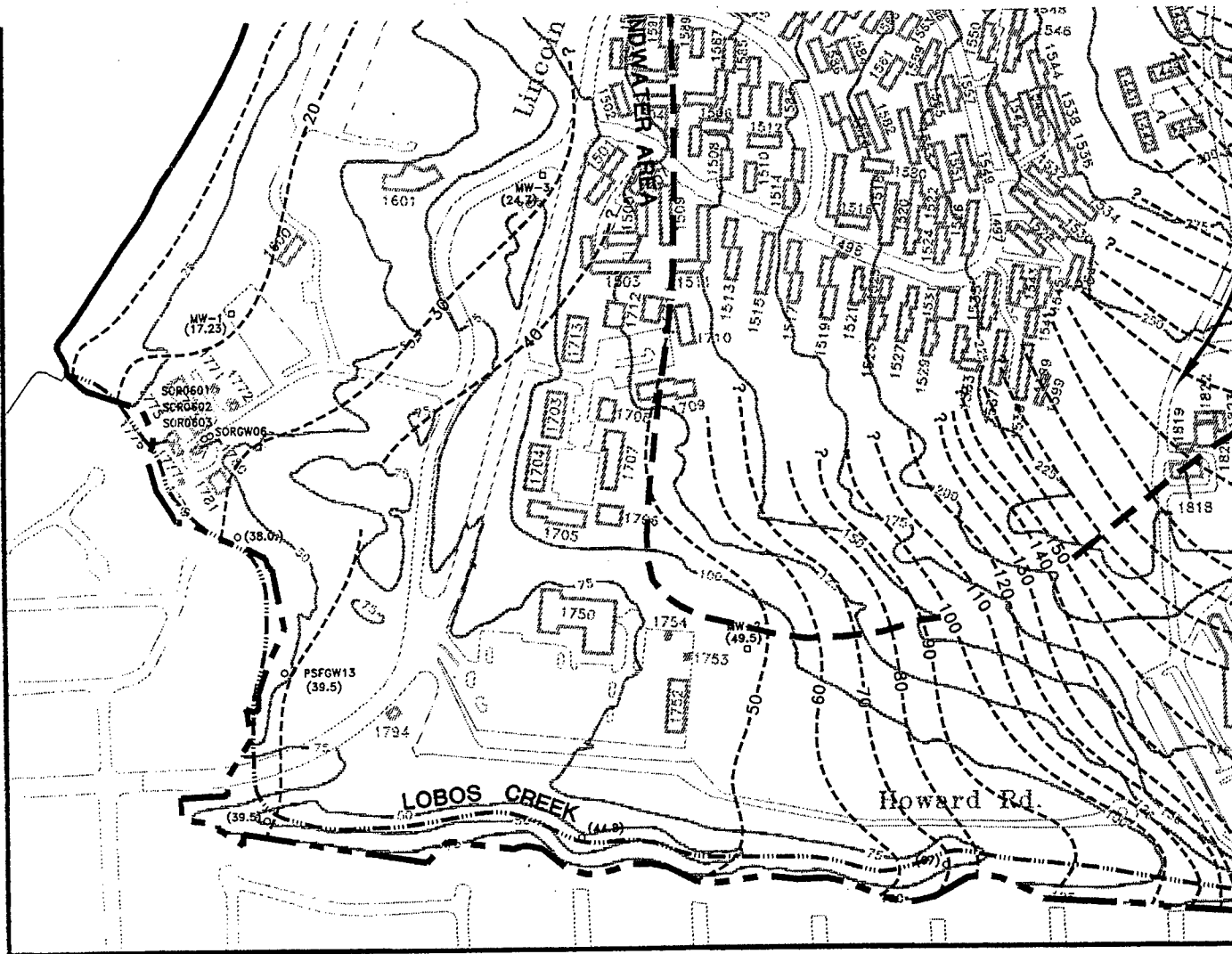


200 TOPOGRAPHIC CONTOUR. CONTOUR INTERVAL: 25 FEET

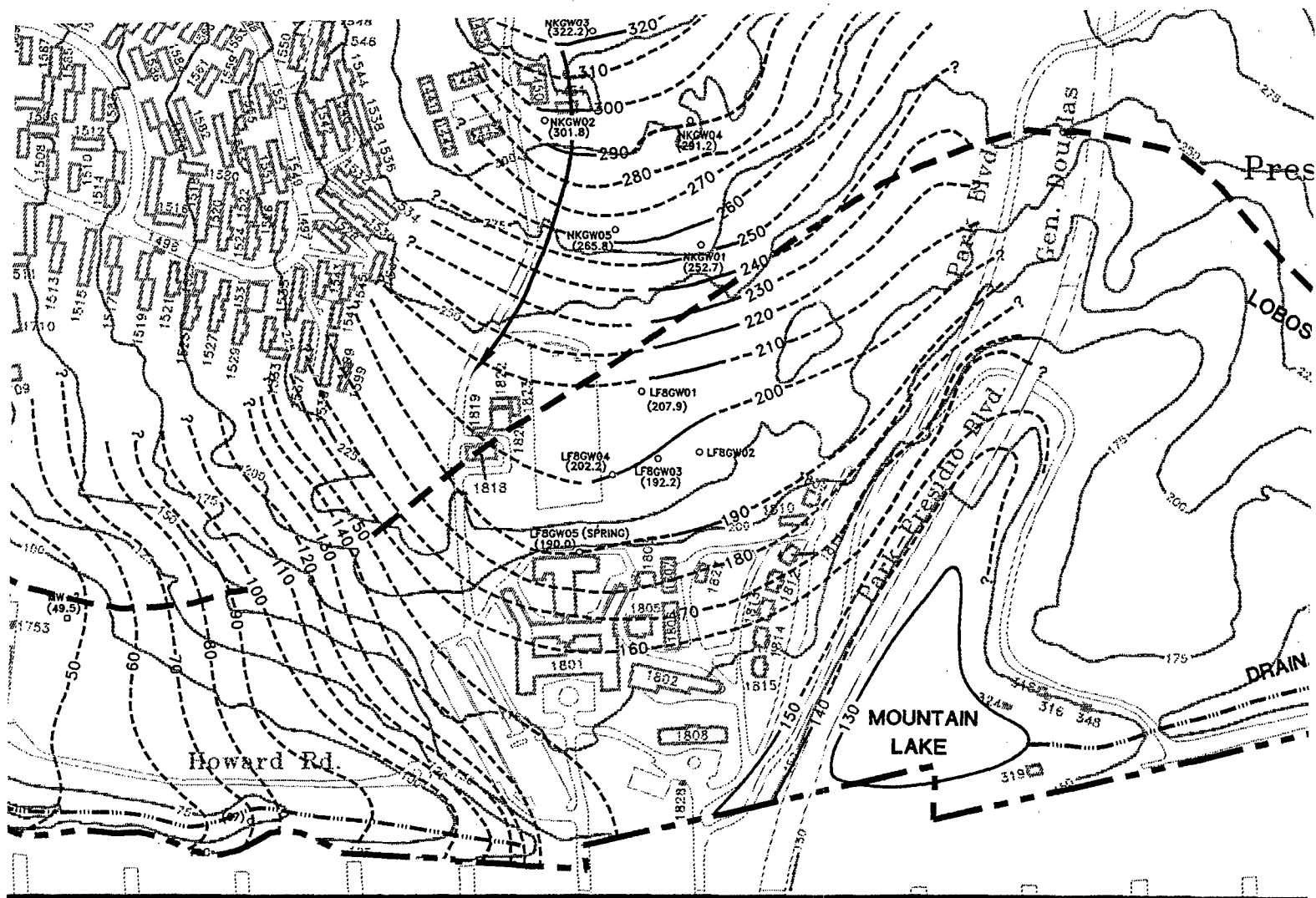
ALL ELEVATIONS IN FEET—PRESIDIO LOWER LOW WATER



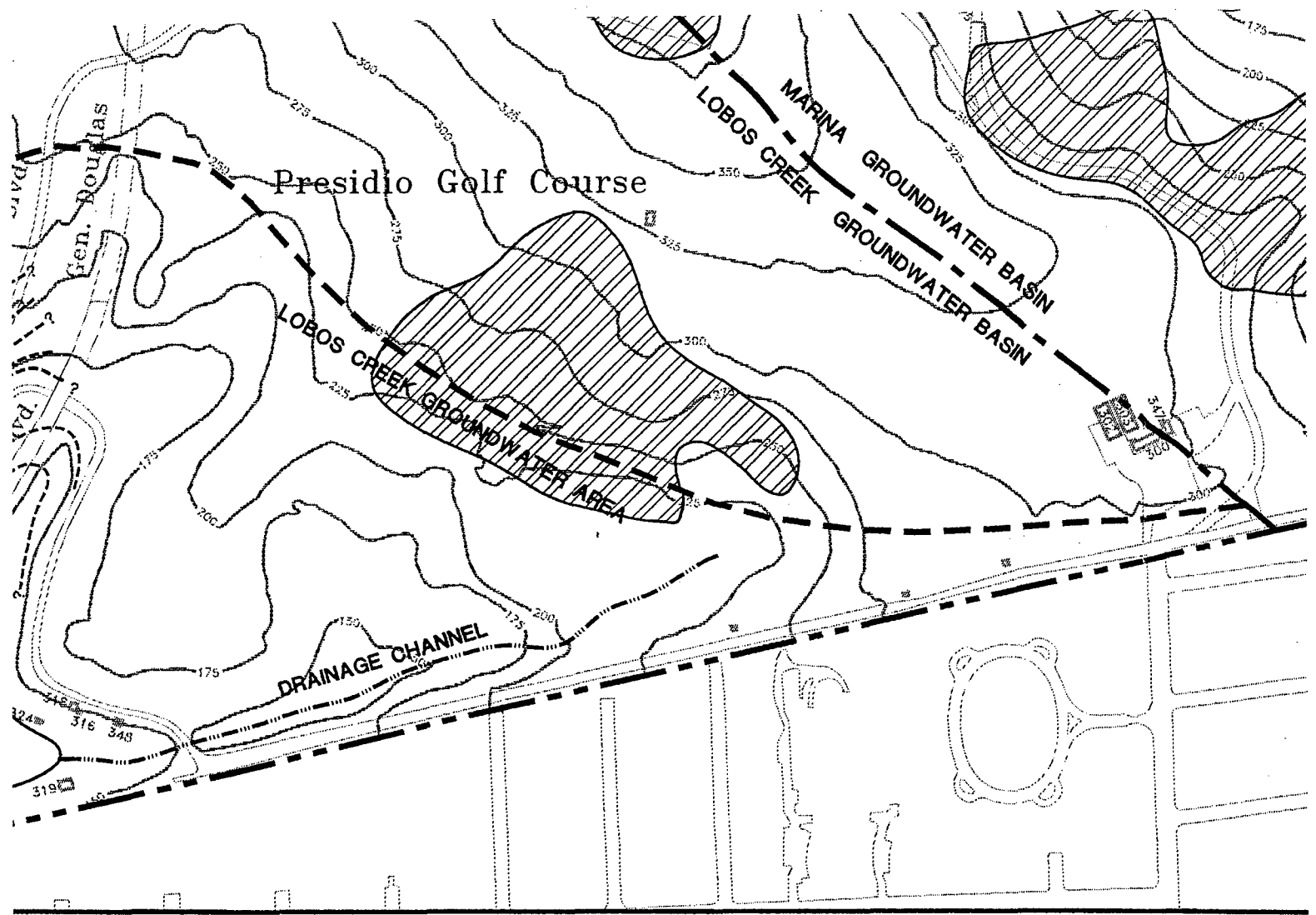




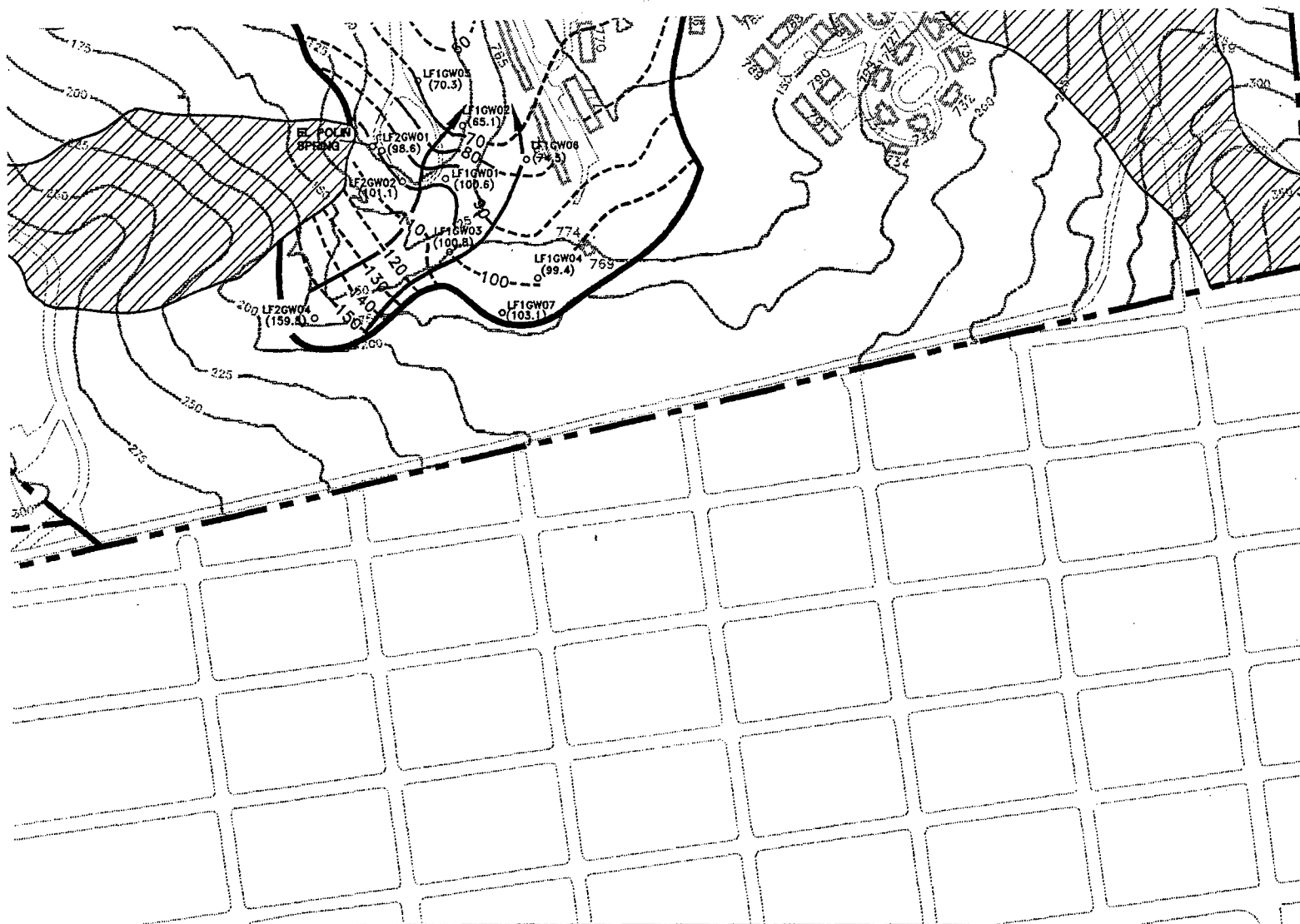




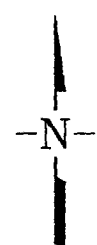
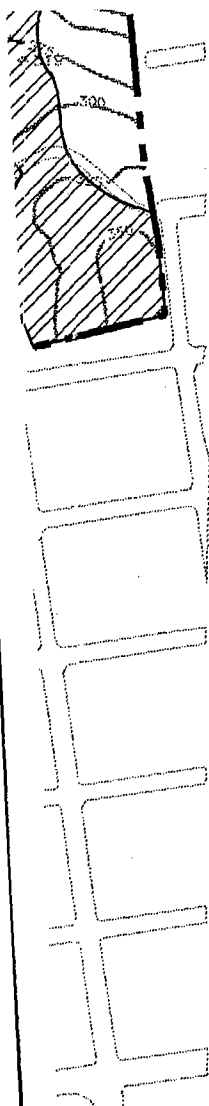












**DAMES & MOORE**

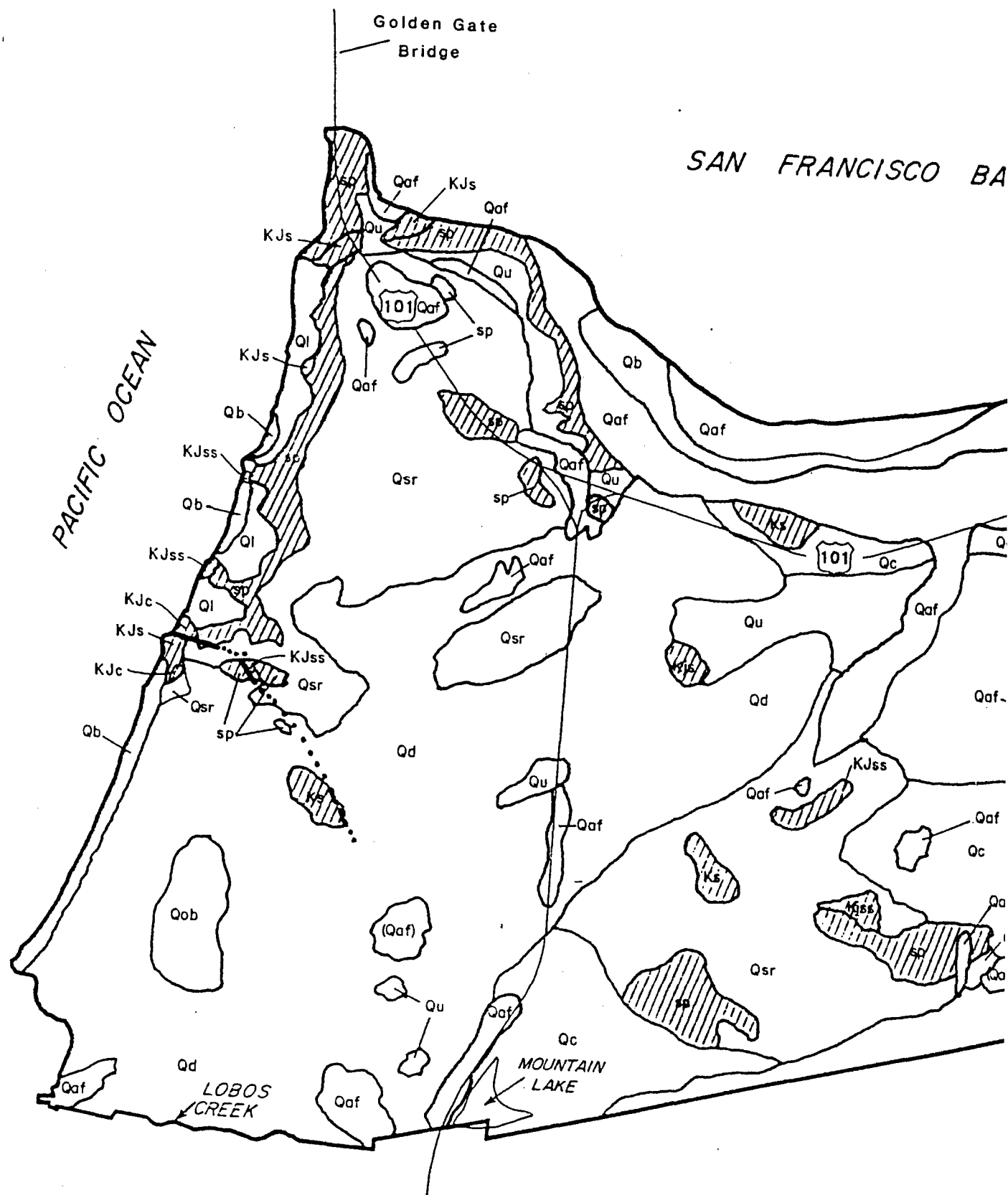
**POTENTIOMETRIC SURFACE MAP OF  
FIRST ENCOUNTERED GROUNDWATER  
PRESIDIO OF SAN FRANCISCO**

PSF25055\DV2

Date: January 1997

Figure 2.3-2







# EXPLANATIO

## Surficial Depos

Holocene	Qaf	Artificial Fill
	(Qaf)	Possible Artifi
	Qb	Modern Beach
Holocene/ Pleistocene	Qsr	Slope Debris
	Qd	Dune Sand
	Ql	Landslide Dep
	Qu	Surficial Depo
Pleistocene	Qob	Older Beach
	Qc	Colma Format

## Bedrock (clastic sedimentar

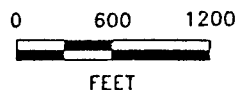
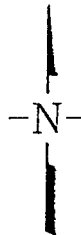
Upper Cretaceous	Francia	Ks	Sheared Roc Undifferenti
		Sp	Serpentine
Upper Cretaceous	Francia	KJc	Radiolarian C
		KJss	Sandstone
		KJus	Sandstone & Undifferentia

Jurassic (?)

&

Upper  
Cretaceous

--- Fault, Dashed w  
... Dotted where p

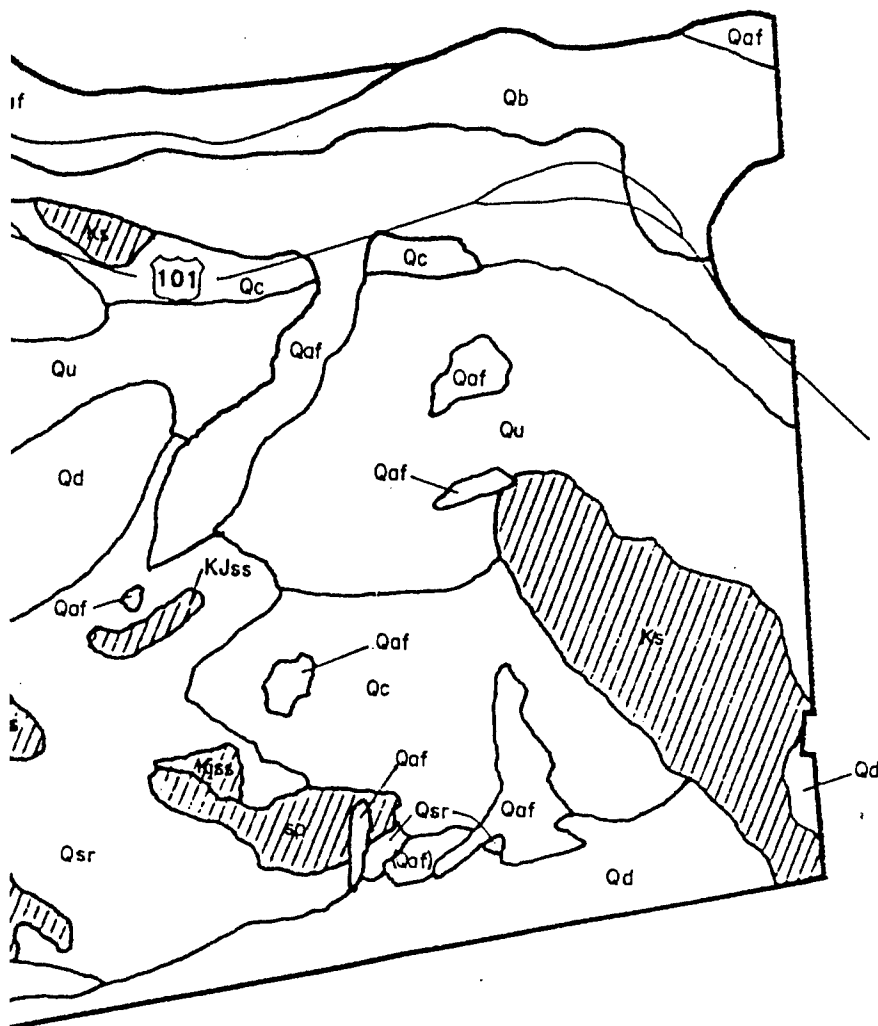


SURFACE  
PRESIDIO O

PSF25164\DV2

Date: January 1997

1N FRANCISCO BAY



2

(Modified from Schlocker, 1974)



# EXPLANATION

## Surficial Deposits

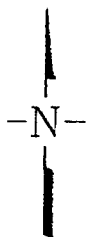
Holocene	Qaf	Artificial Fill
	(Qaf)	Possible Artificial Fill
	Qb	Modern Beach Deposits
Holocene/ Pleistocene	Qsr	Slope Debris & Ravine Fill
	Qd	Dune Sand
	Ql	Landslide Deposits
	Qu	Surficial Deposits, Undivided
Pleistocene	Qob	Older Beach Deposits
	Qc	Colma Formation

## Bedrock

(clastic sedimentary rocks)

Jurassic (?) & Upper Cretaceous	Upper Cretaceous	Ks	Sheared Rocks, Undifferentiated
		Sp	Serpentine
	Franciscan Formation	Kvc	Radiolarian Chert & Shale
		Kuss	Sandstone
		Kus	Sandstone & Shale, Undifferentiated

--- Fault, Dashed where Appropriate,  
... Dotted where projected



0 600 1200  
FEET



DAMES & MOORE

SURFACE GEOLOGY MAP,  
PRESIDIO OF SAN FRANCISCO

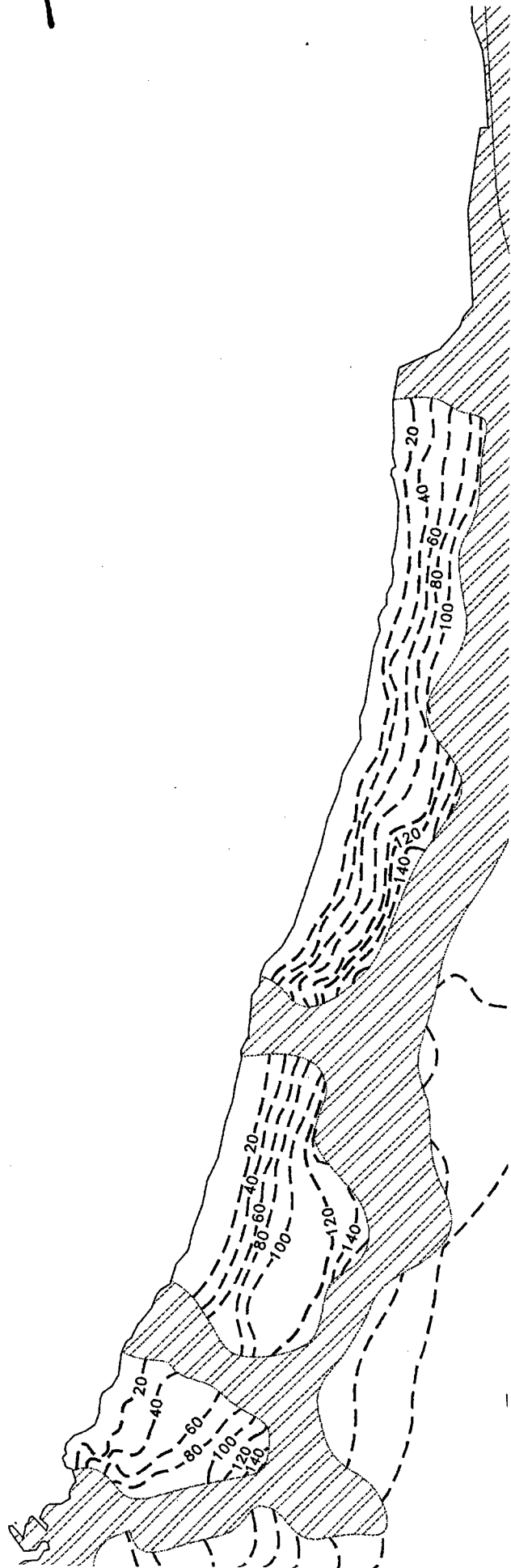
PSF25164\DV2

ed from Schlocker, 1974)

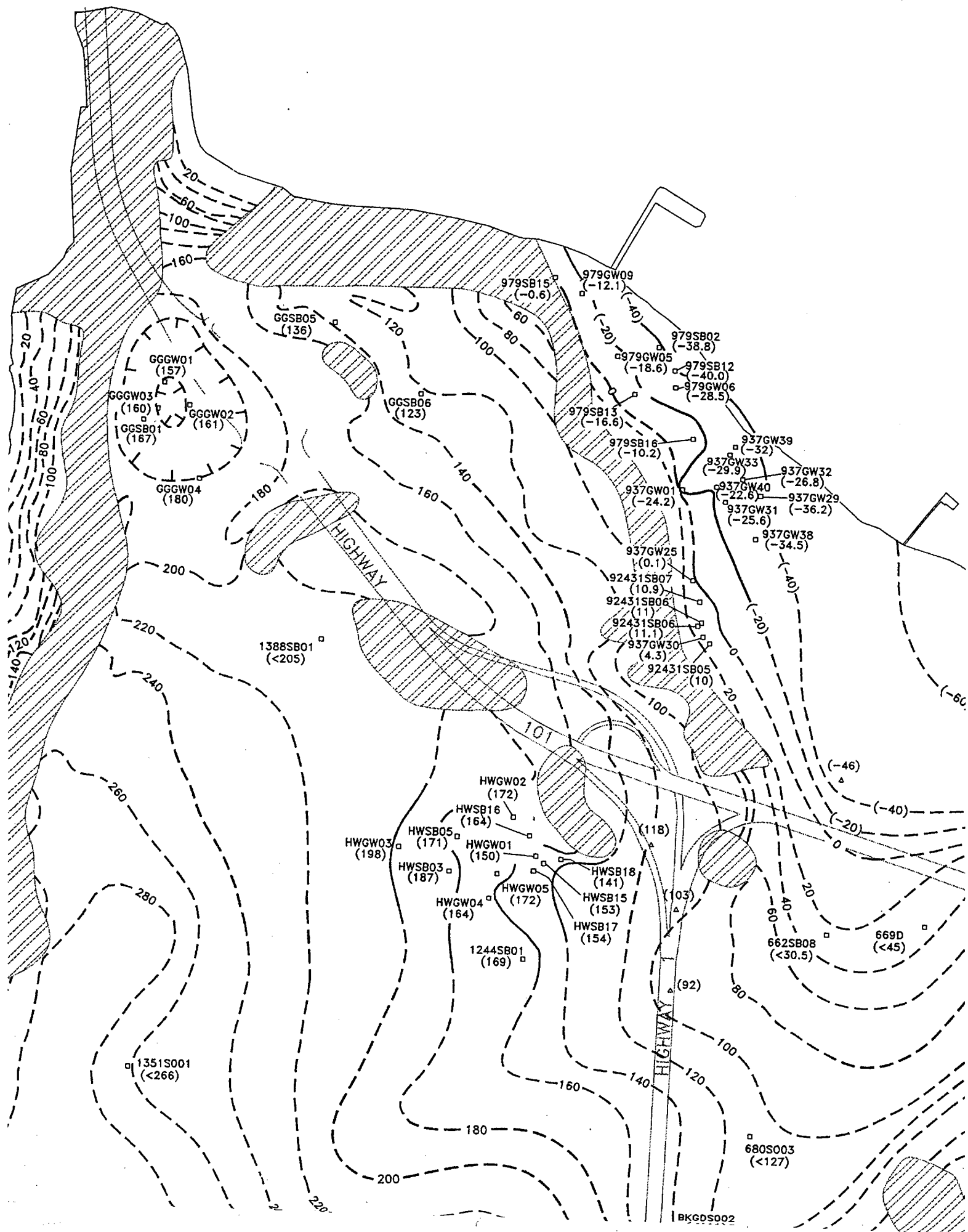
Date: January 1997

Figure 2.3-3

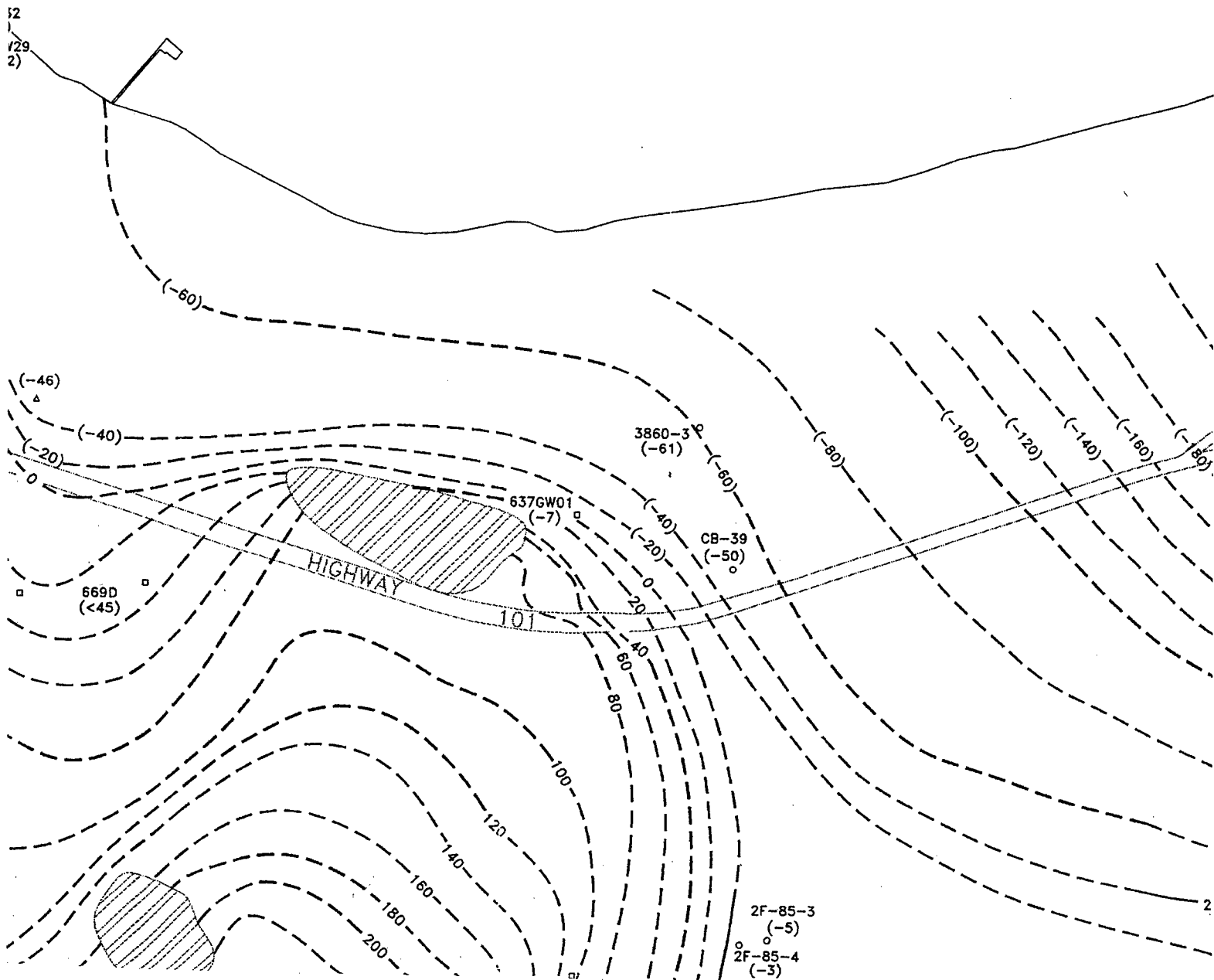








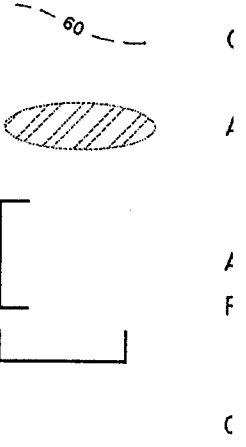






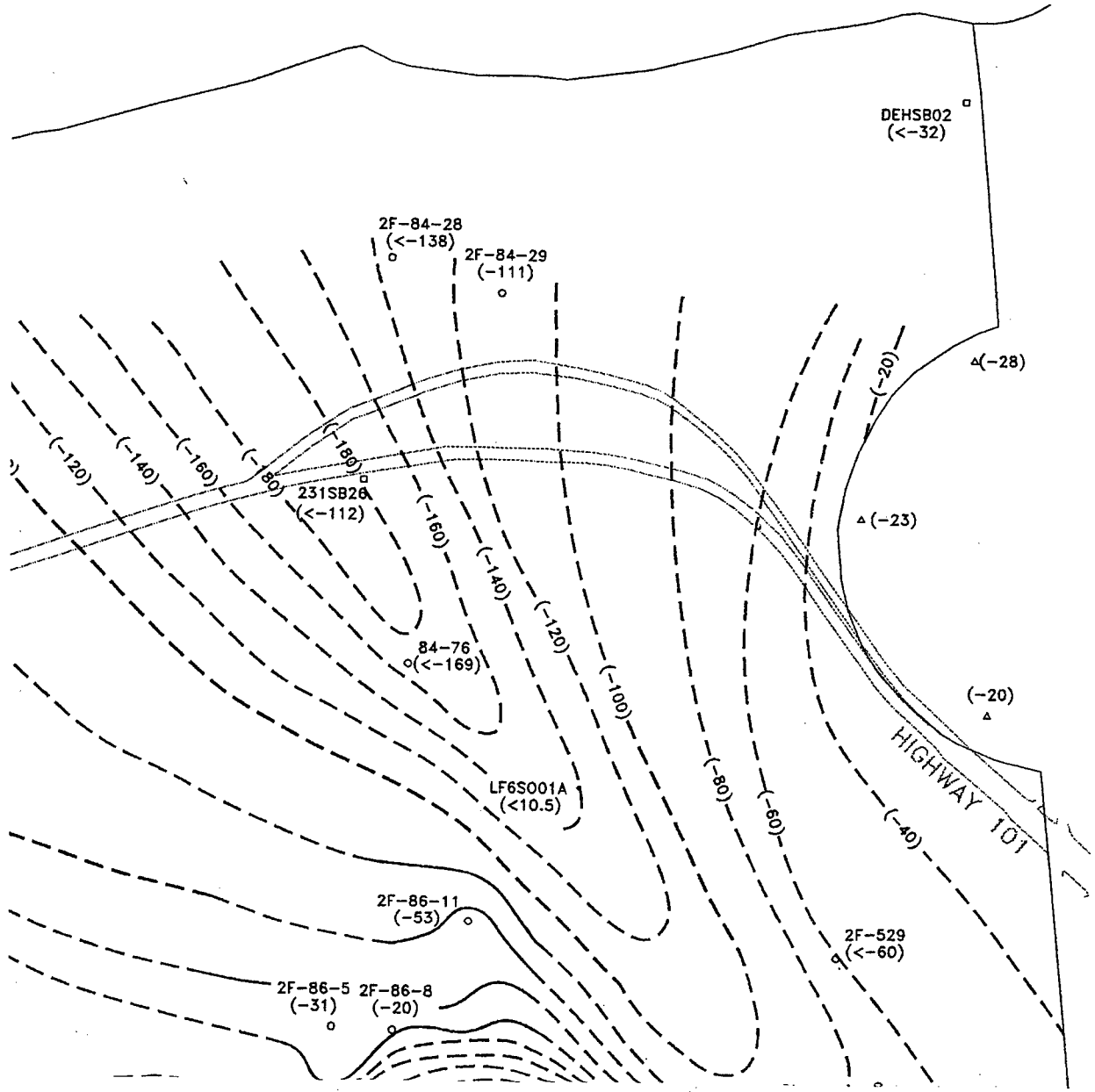
4

□  
○  
△  
231SB26  
(<-138)



FEET

NOTE: BEDROCK  
BOREHOLE  
ELEVATIO





EXPLANATION

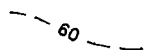
□ DAMES & MOORE DATA LOCATION

○ DATA OBTAINED FROM MONTGOMERY WATSON (1995)

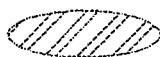
△ DATA OBTAINED FROM SCHLOCKER (1974)

231S826 SITE ID

(-138) ELEVATION OF TOP OF BEDROCK  
AT DATA LOCATION



CONTOUR INDICATING ELEVATION OF TOP OF BEDROCK



AREA OF BEDROCK OUTCROP

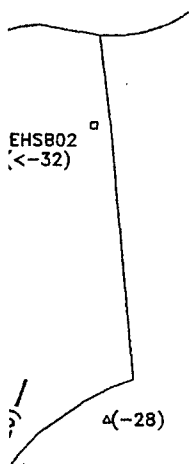


AREA OF BEDROCK CONTOURS OBAINTED  
FROM NOLTE & ASSOCIATES (1993)

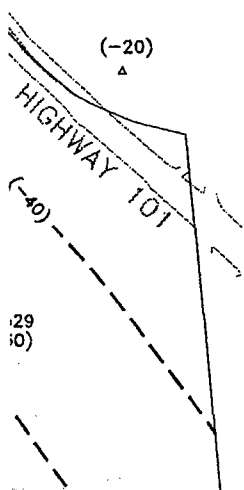
CONTOUR INTERVAL: 20 FEET

ELEVATIONS IN  
FEET-PRESIDIO LOWER LOW WATER

NOTE: BEDROCK SURFACE ELEVATIONS OBTAINED FROM  
BOREHOLE DATA EXCEPT FOR NOLTE & ASSOCIATES  
ELEVATIONS WHICH WERE OBTAINED FROM GEOPHYSICAL DATA.



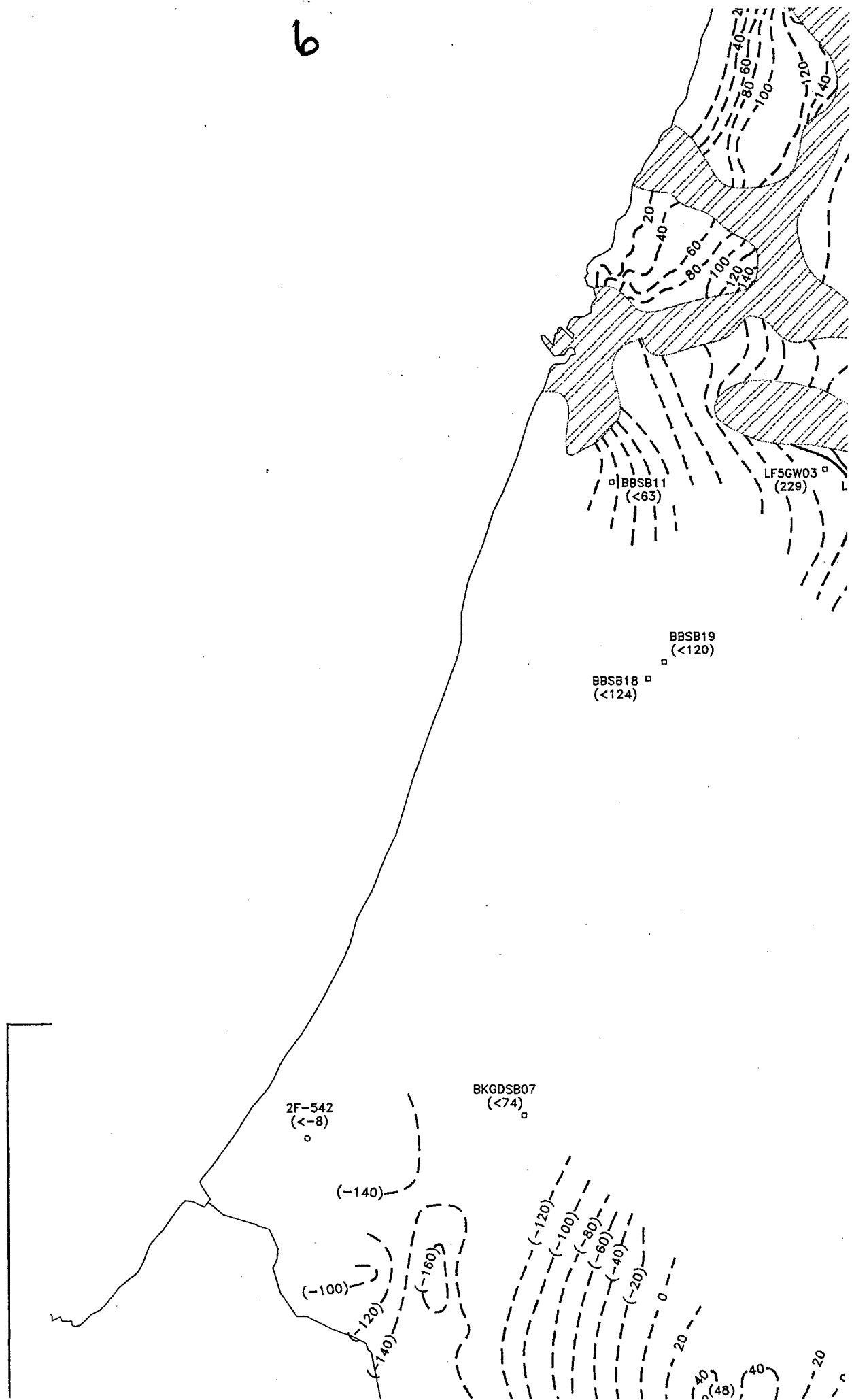
23)



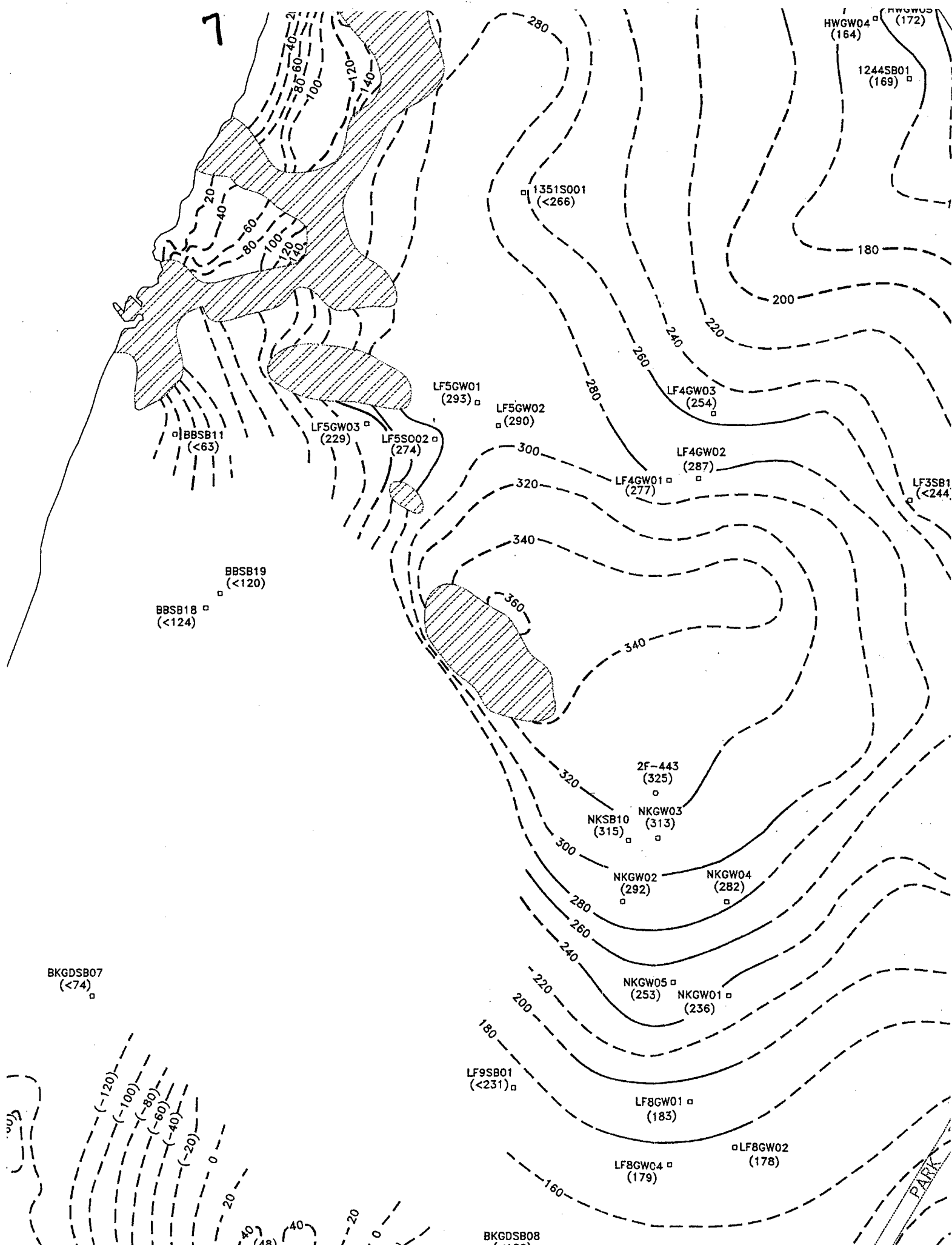
29  
10)



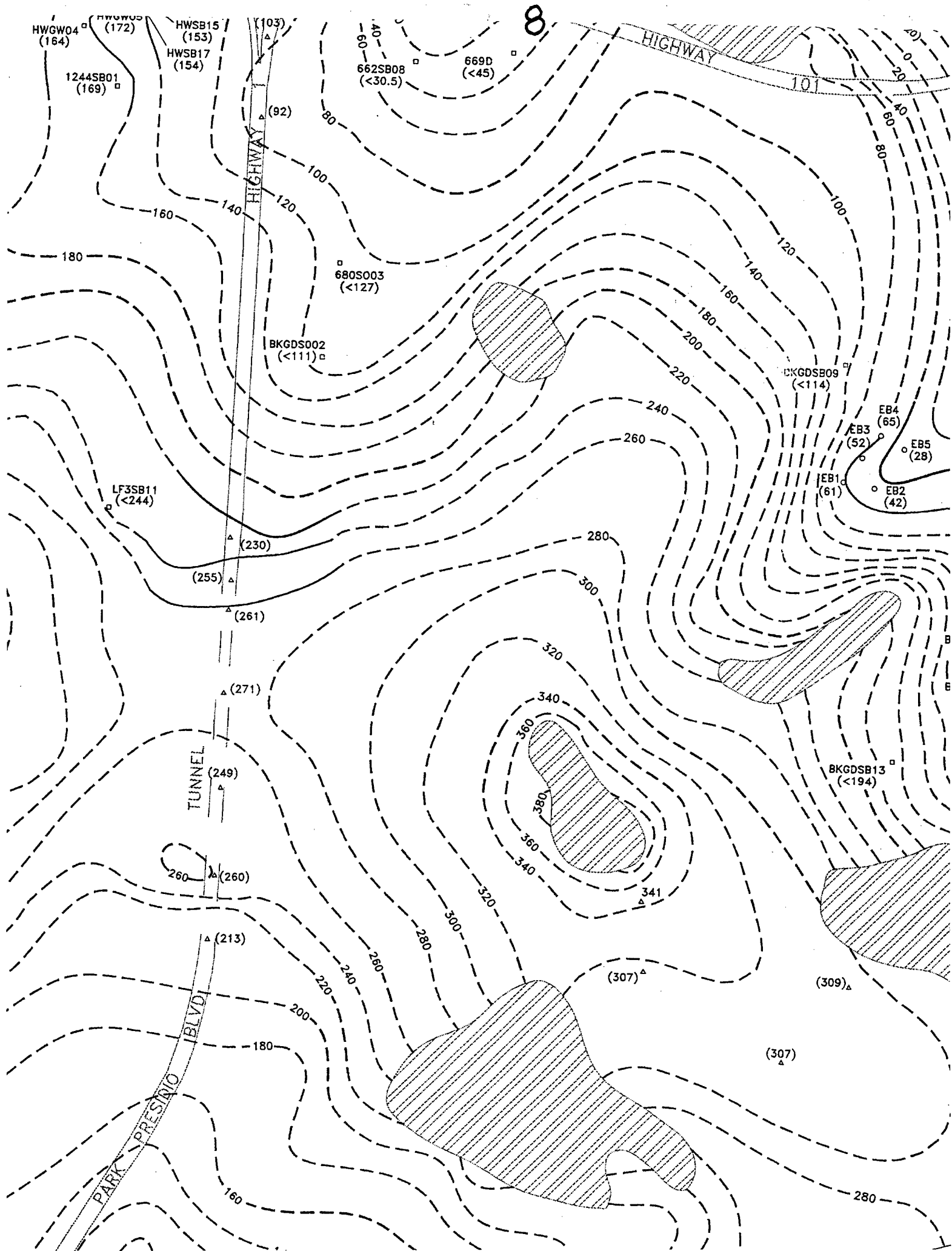
6



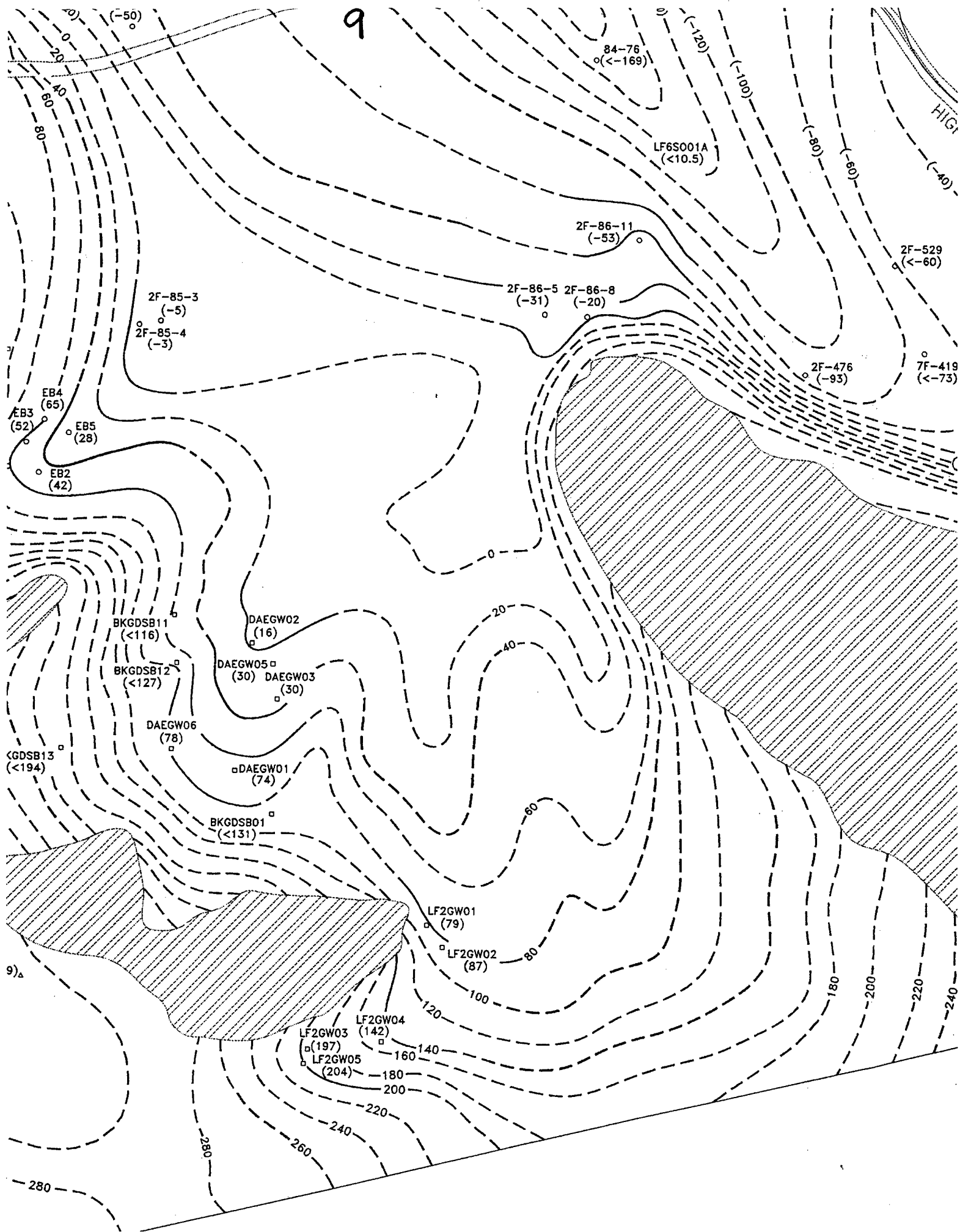




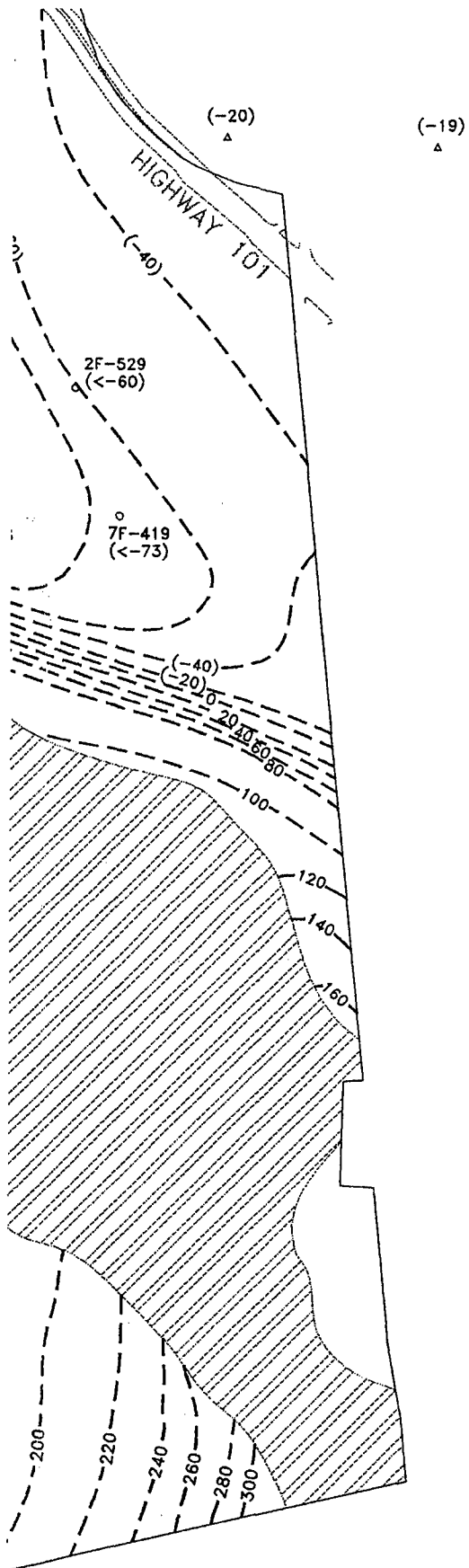








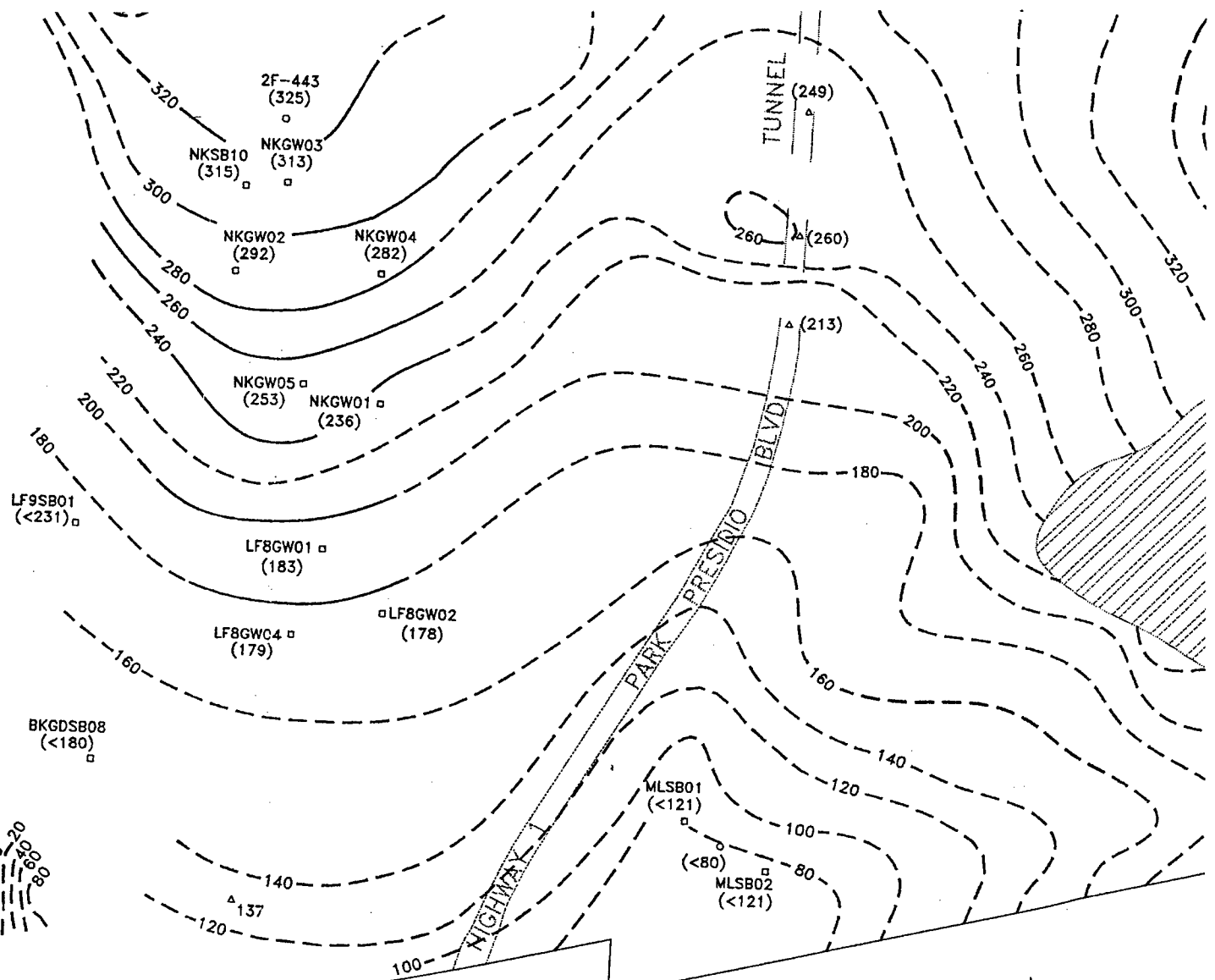




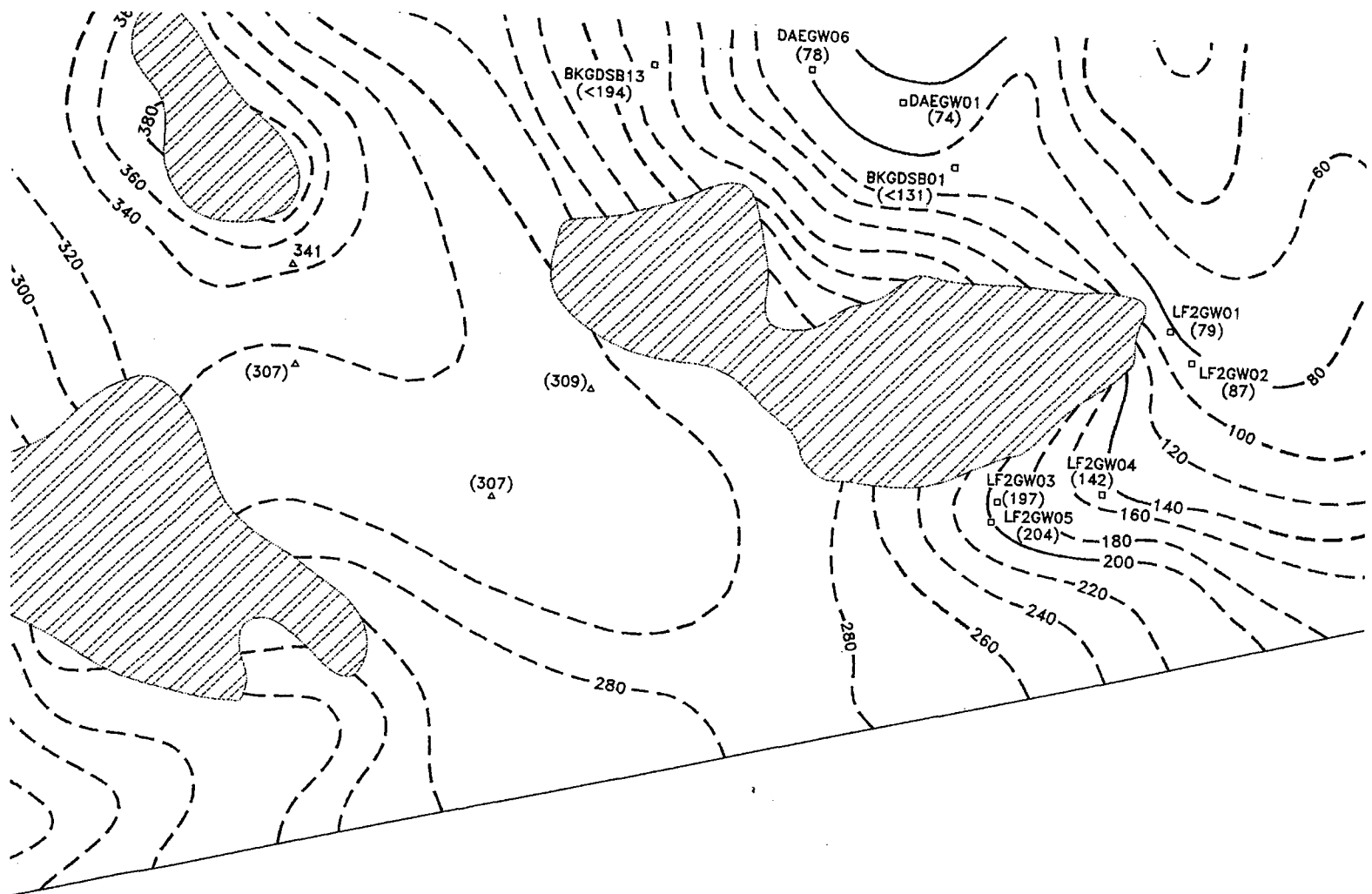




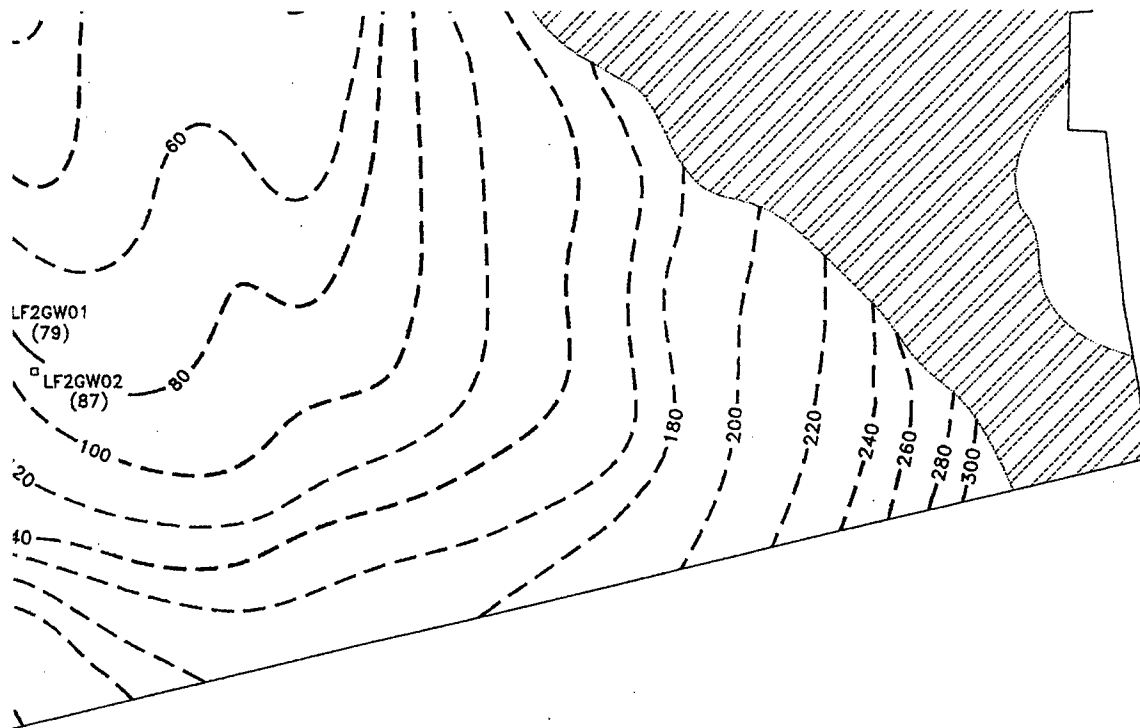




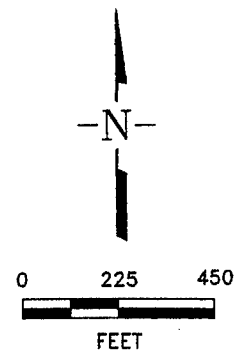




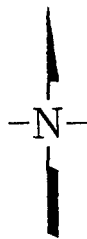
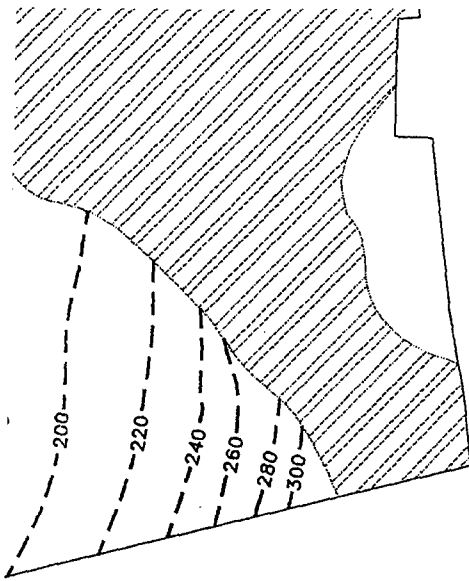




NOTE: Adapted from Schlocker, 1974.







0 225 450  
FEET

ed from Schlocker, 1974.

 DAMES & MOORE

STRUCTURE CONTOUR MAP  
OF THE BEDROCK SURFACE  
PRESIDIO OF SAN FRANCISCO

PSF25057\DV1

Date: January 1997

Figure 2.3-4



Golden Gate Bridge

Hwy. 1

BAKER BEACH

DISTURBED AREA 1

DISTURBED AREA 2

BLDG. 1369

Lincoln Blvd

BLDG. 1351

Kobbe

Pacific Ocean

1664  
1663  
1662

998

GGGW01

GGGW03

GGGW02

GGGW05

GGGW04

GGGW06

GGGW07

GGGW08

GGGW09

GGGW10

GGGW11

GGGW12

GGGW13

GGGW14

GGGW15

GGGW16

GGGW17

GGGW18

GGGW19

GGGW20

GGGW21

GGGW22

GGGW23

GGGW24

GGGW25

GGGW26

GGGW27

GGGW28

GGGW29

GGGW30

GGGW31

GGGW32

GGGW33

GGGW34

GGGW35

GGGW36

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GGGW298

GGGW299

GGGW300

GGGW301

GGGW302







CRISBY FIELD

Mason St.

Hwy. 101

Lincoln Blvd.

STATION 2

Lincoln Bldg

2F-86-11



EXPLANATIONDEHGW03  
○

DAMES &amp; MOORE MON

268S001  
●

DAMES &amp; MOORE SOIL

2F-86-8  
□DATA OBTAINED FROM  
MONTGOMERY WATSON

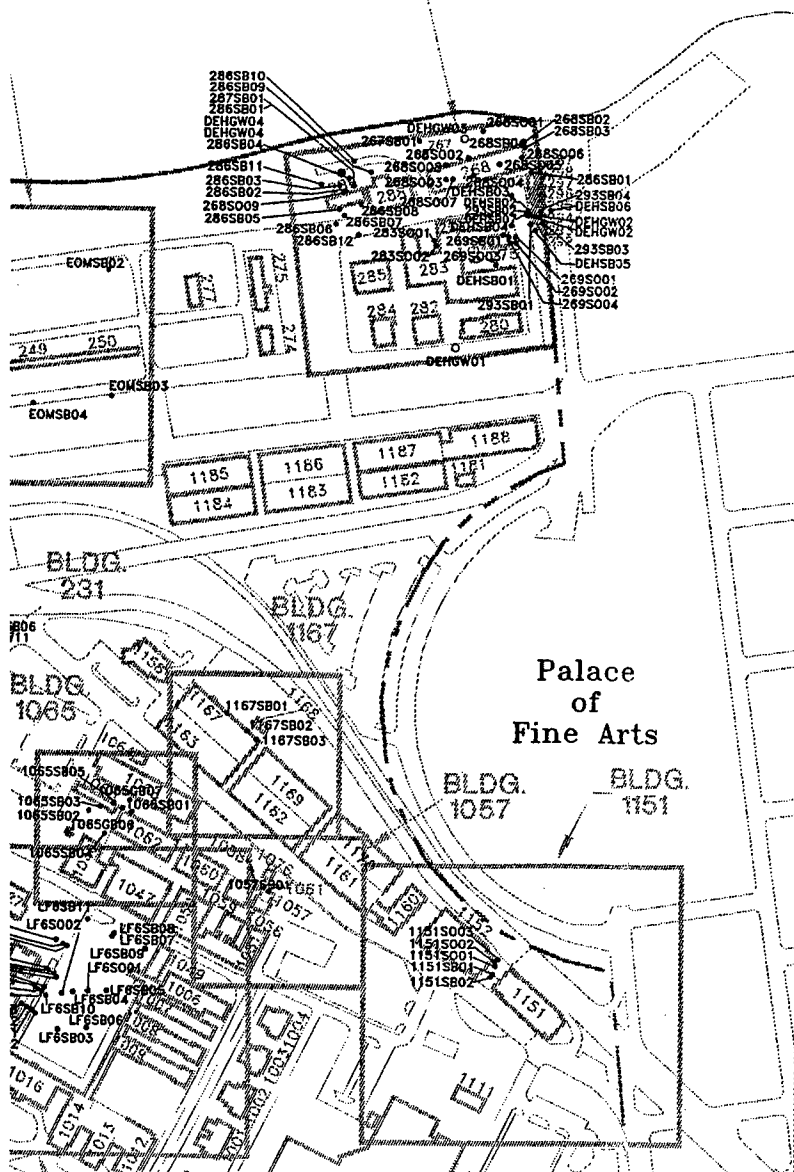
CROSS SECTION LINE



SITE MAP OUTLINE

DIRECTORATE OF  
ENGINEERING AND HOUSING

MASON



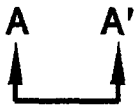


EXPLANATIONDEHGW03  
○

DAMES &amp; MOORE MONITORING WELL

268S001  
●

DAMES &amp; MOORE SOIL BORING

2F-86-8  
□DATA OBTAINED FROM  
MONTGOMERY WATSON (1995e)

CROSS SECTION LINE

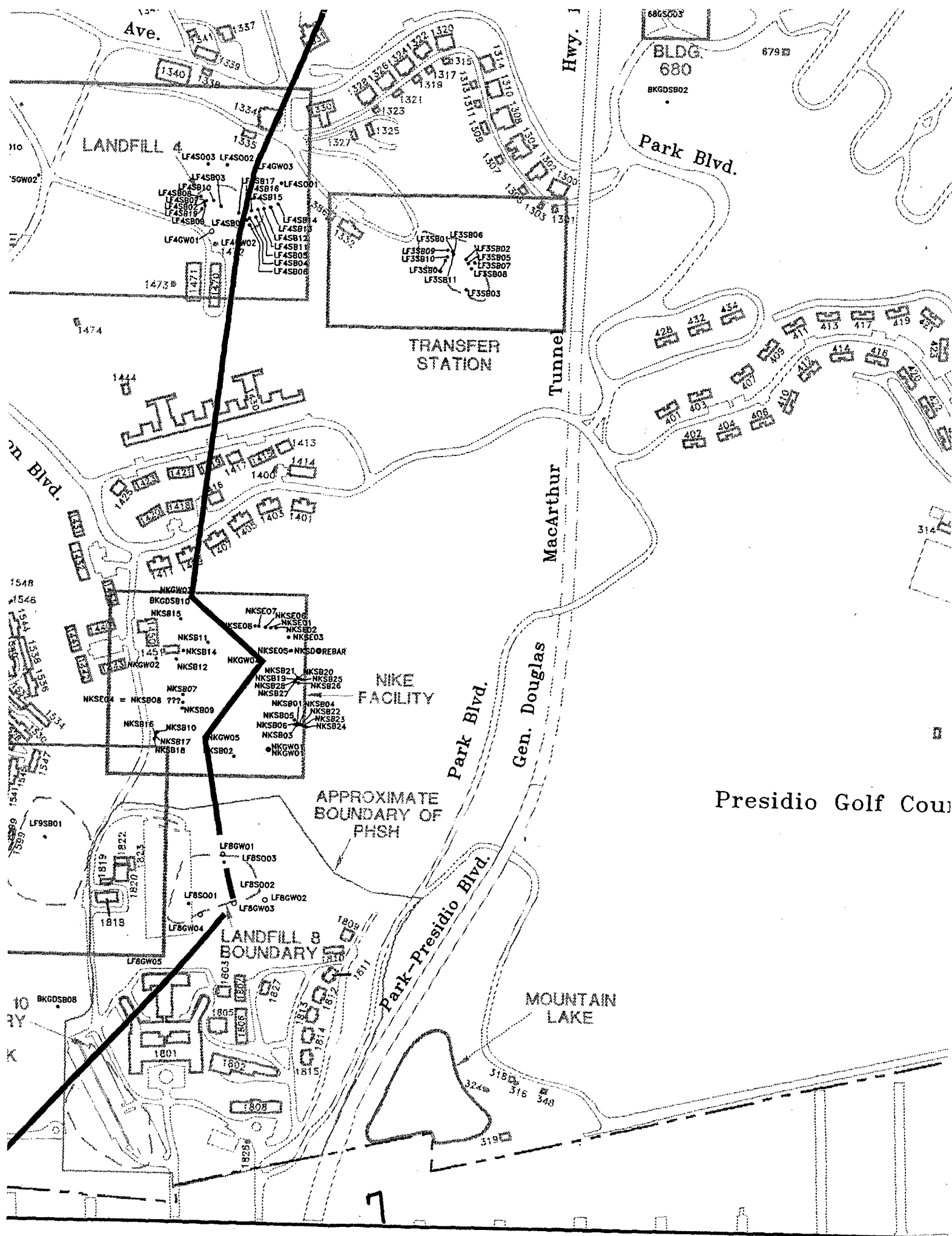


SITE MAP OUTLINE

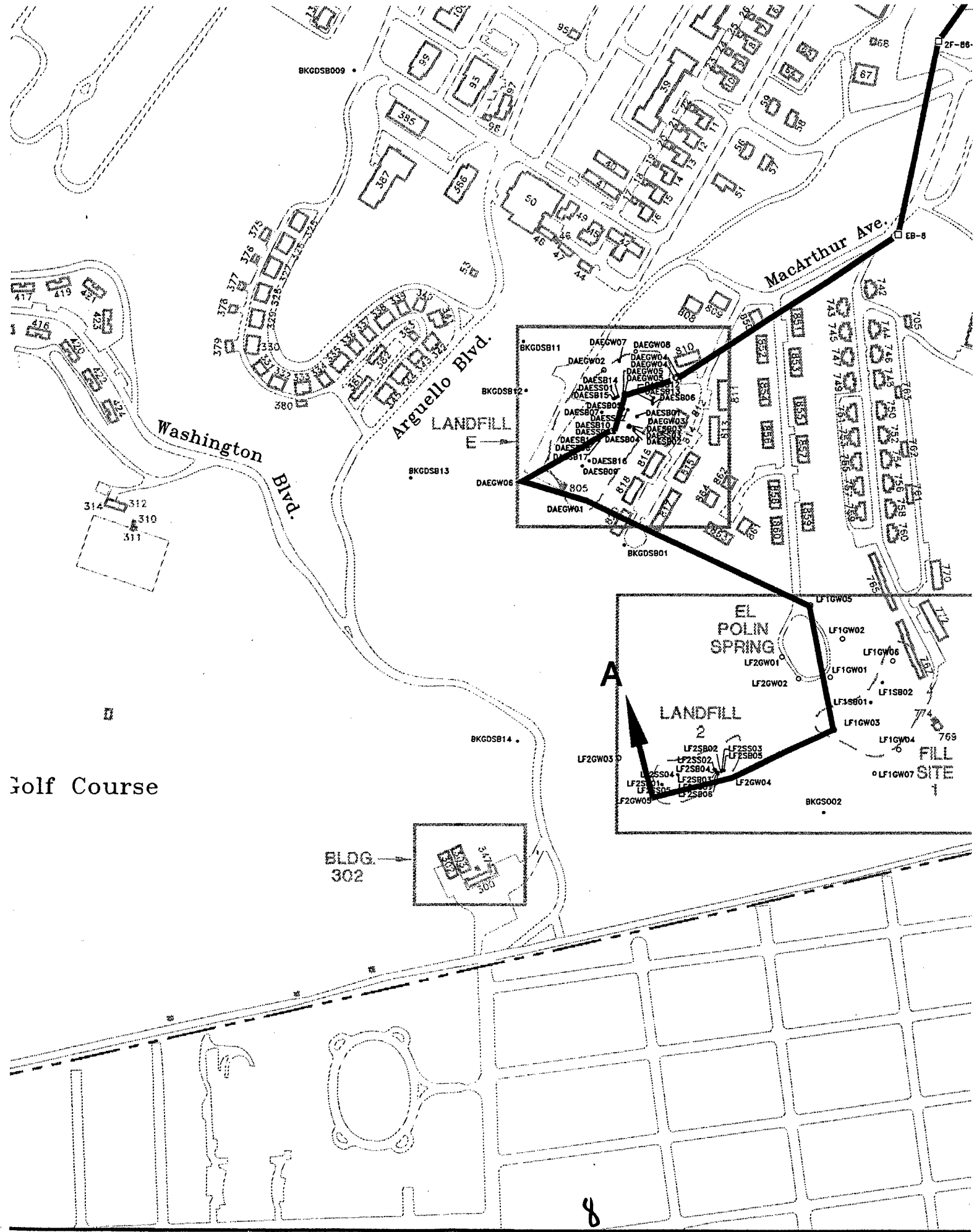








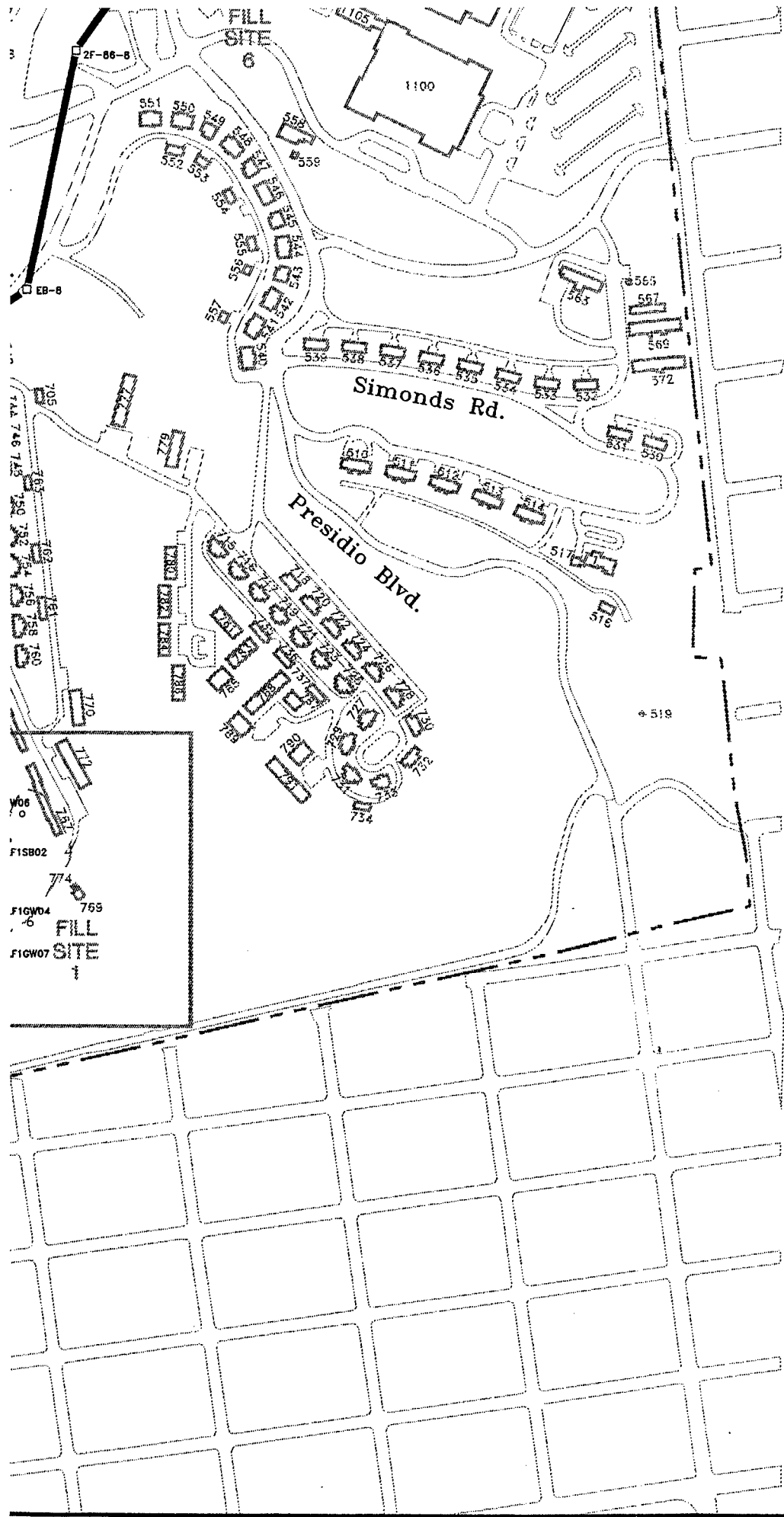




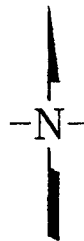
Golf Course

BLDG.  
302









0 225 450  
FEET



**DAMES & MOORE**

**REGIONAL CROSS SECTION  
LOCATION MAP  
PRESIDIO OF SAN FRANCISCO**

PSF25056\DV1

Date: January 1997

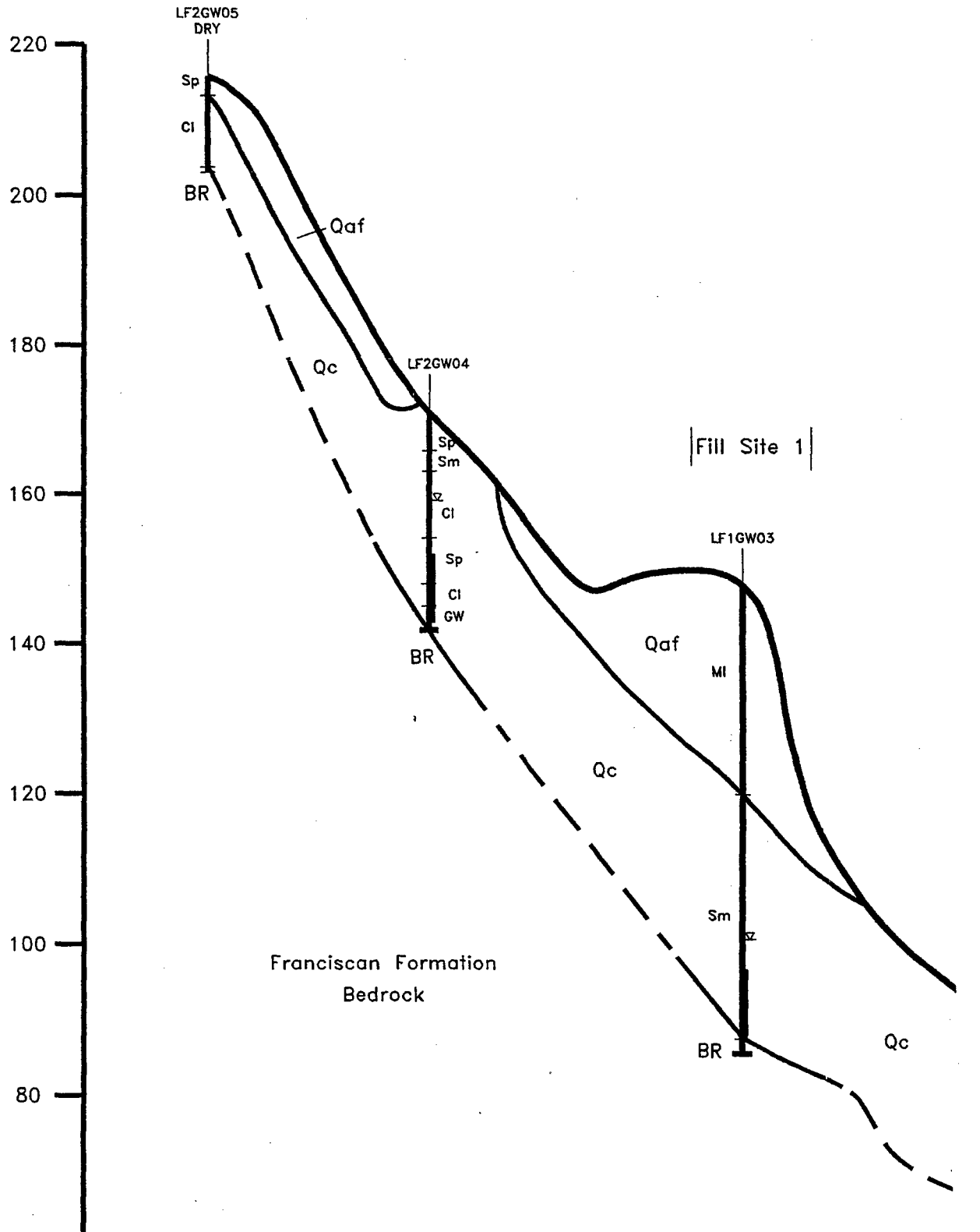
Figure 2.3-5



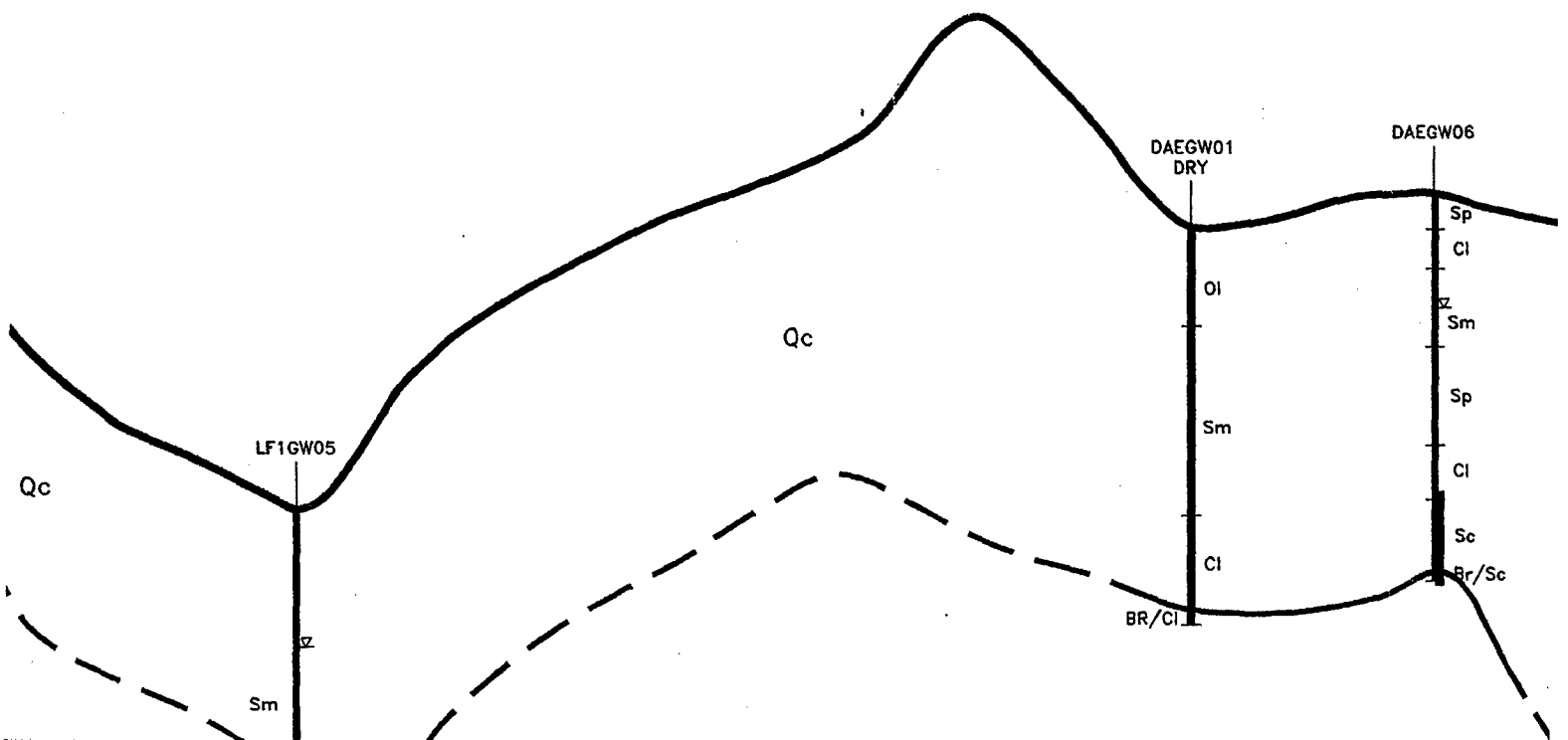
South  
A

Elevation  
(feet above Presidio Lower Low Water)

Landfill 2

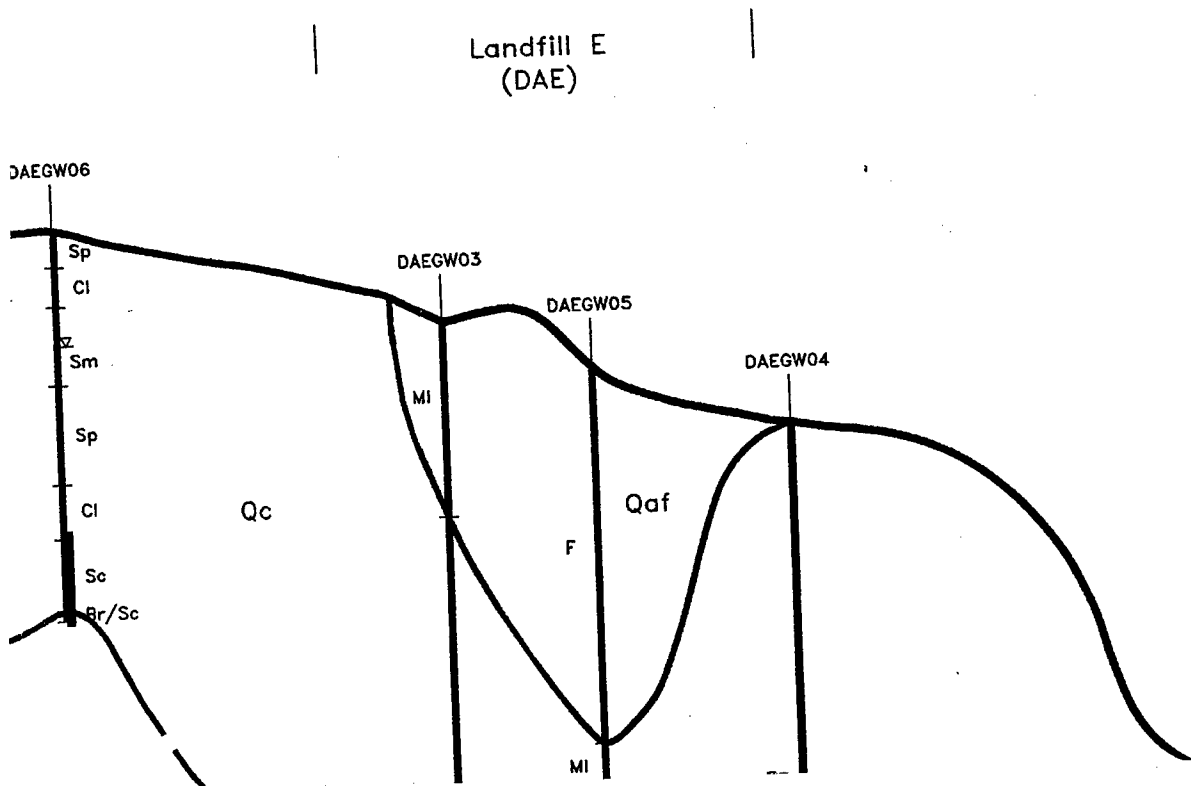








## Northeastern Groundwater Area





4

r Area



5



General Direction  
of Groundwater Flow





6

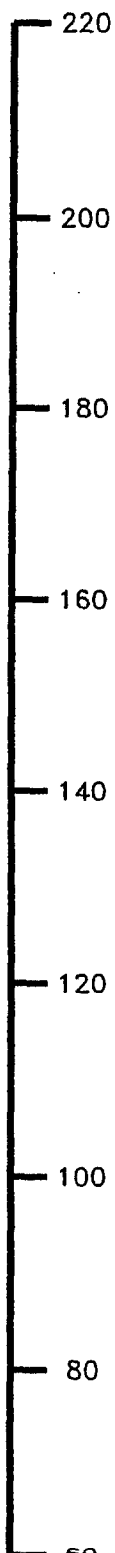
Crissy Field  
Groundwater Area

(feet ab



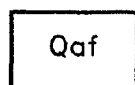
# North A'

Elevation  
ft above Presidio Lower Low Water)

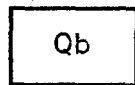


## EXPLANATION

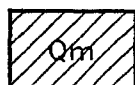
### GEOLOGIC UNIT



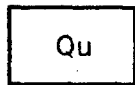
ARTIFICIAL FILL



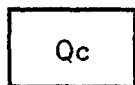
MODERN BEACH DEPOSITS



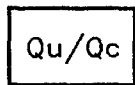
BAY MUD



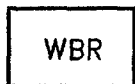
UNDIVIDED SURFICIAL DEPOSITS



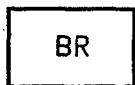
COLMA FORMATION



MAPPED AS UNDIVIDED SURFICIAL DEPOSITS  
BUT POSSIBLY COLMA FORMATION

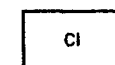


WEATHERED BEDROCK OF THE  
FRANCISCAN FORMATION

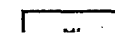


BEDROCK OF THE FRANCISCAN FORMATION  
(PREDOMINANTLY SERPENTINITE)

### SOIL CLASSIFICATION



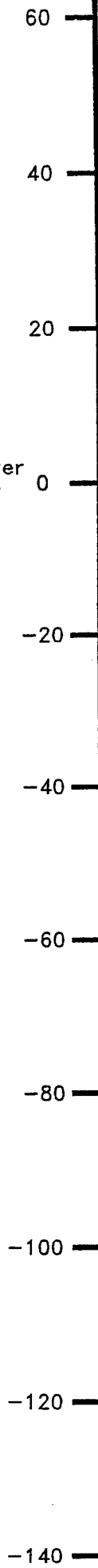
CLAY



SILT



Presidio Lower  
Low Water

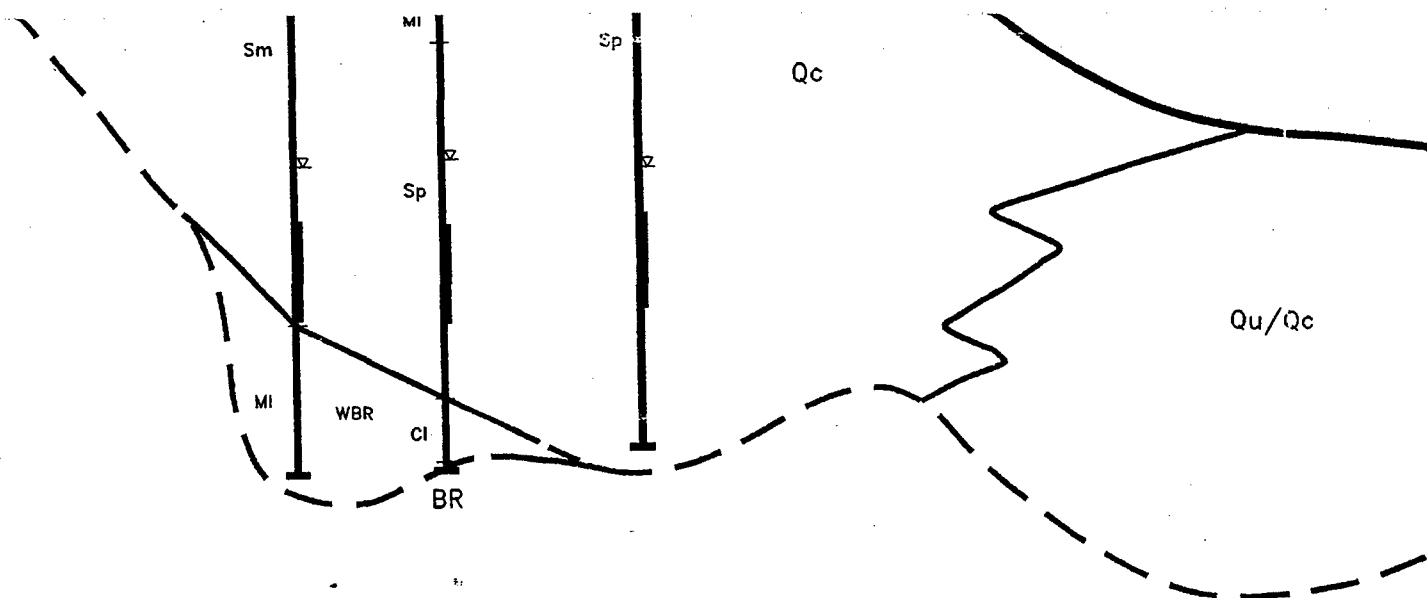




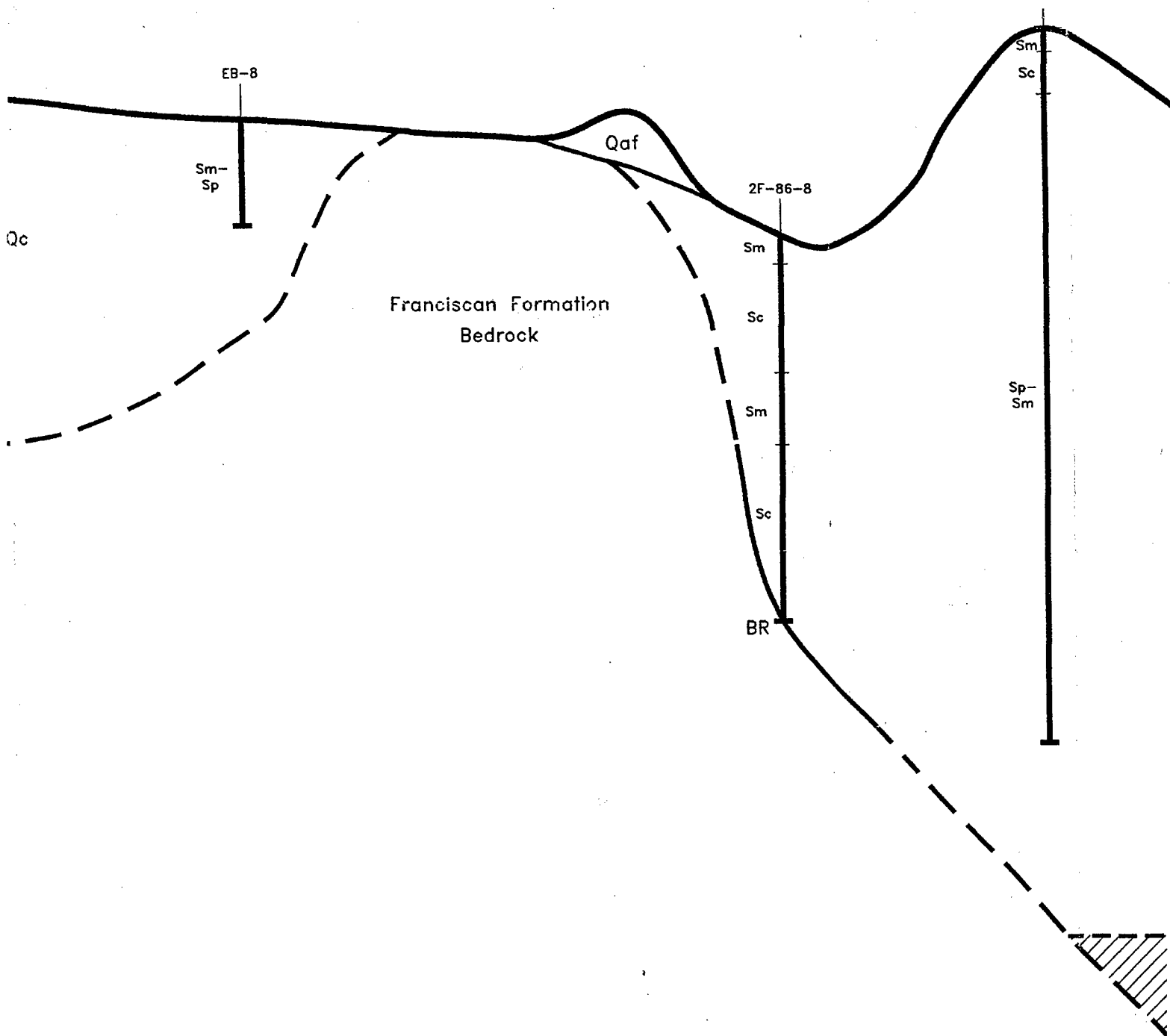


Franciscan Formation  
Bedrock

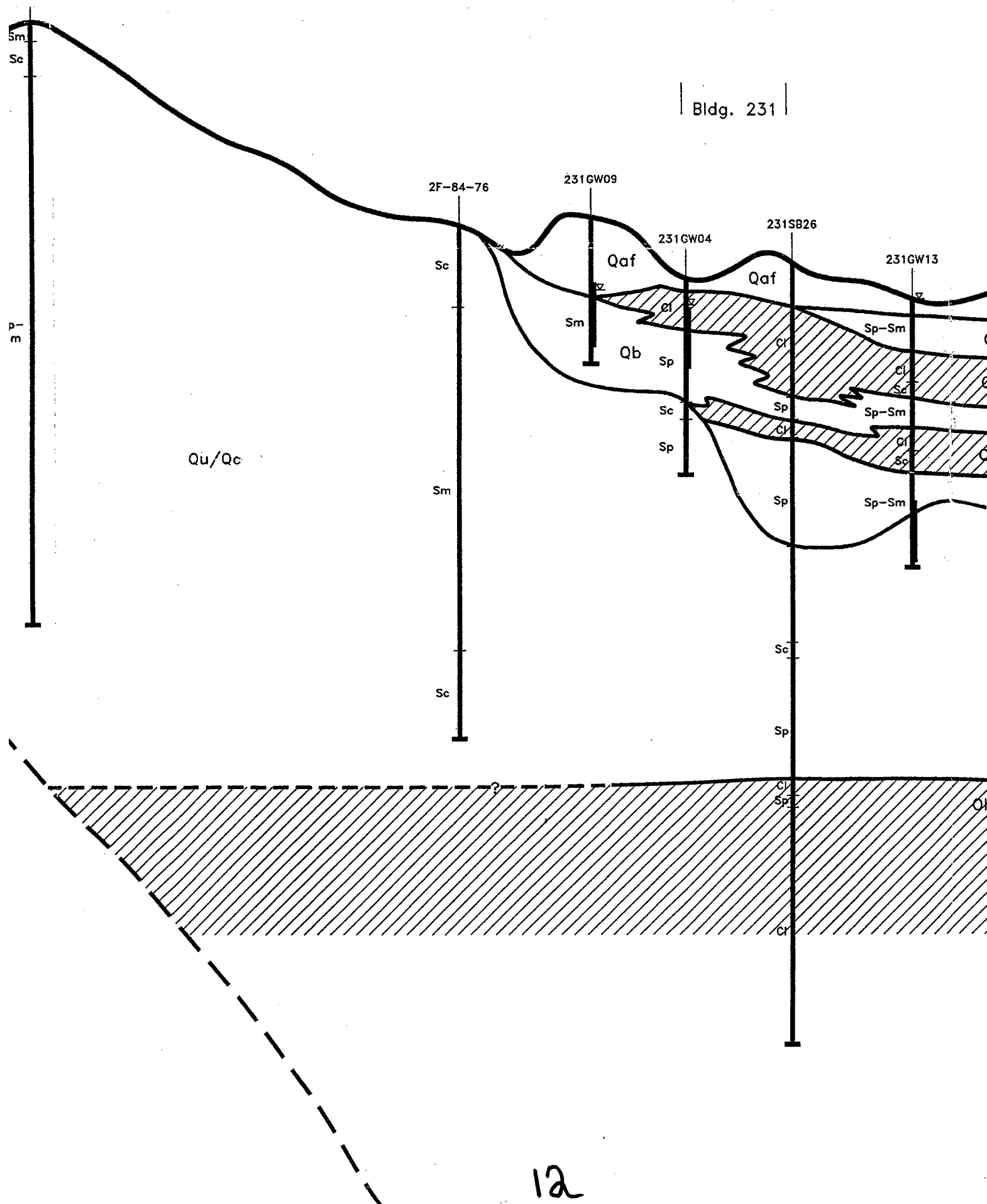






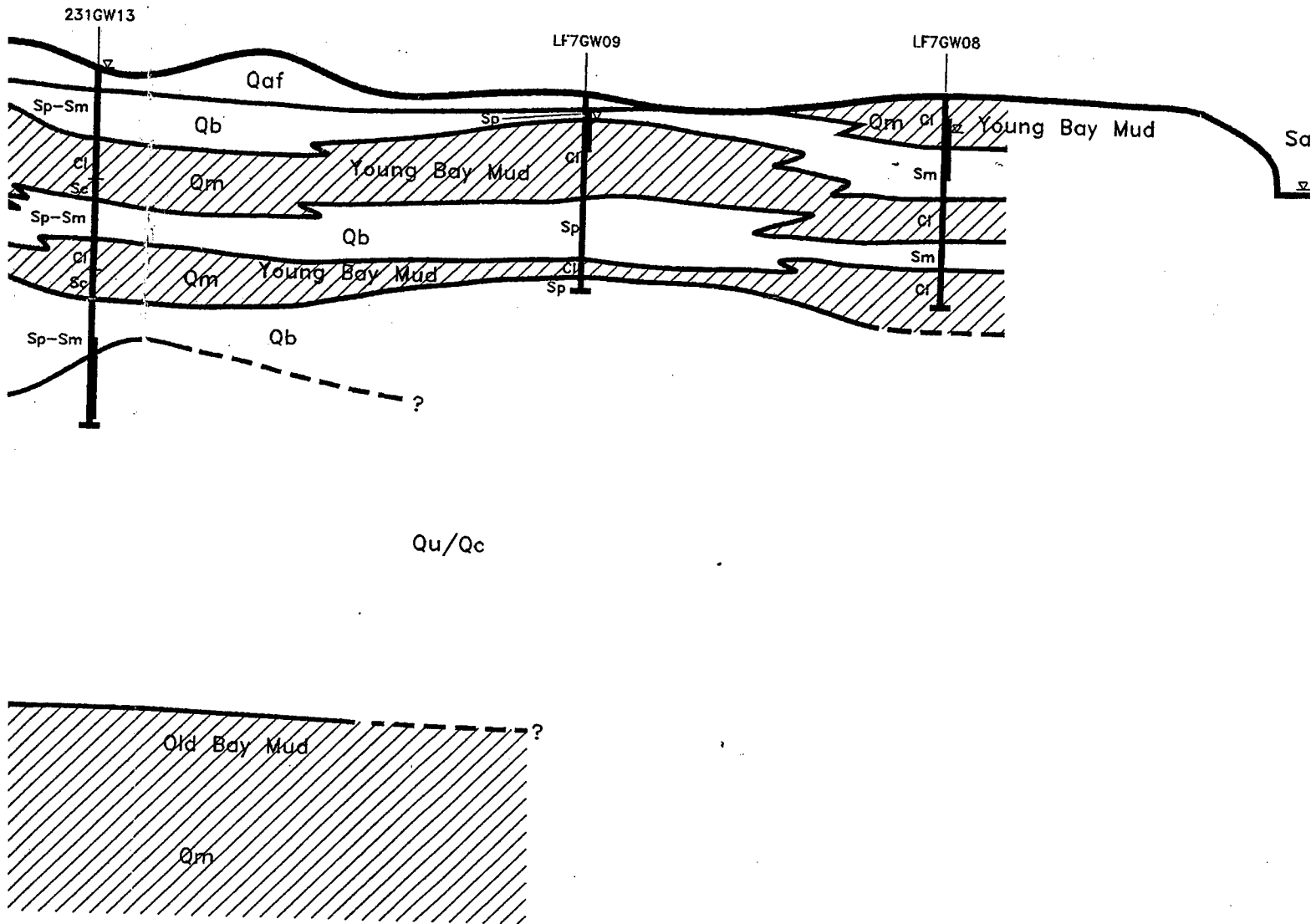




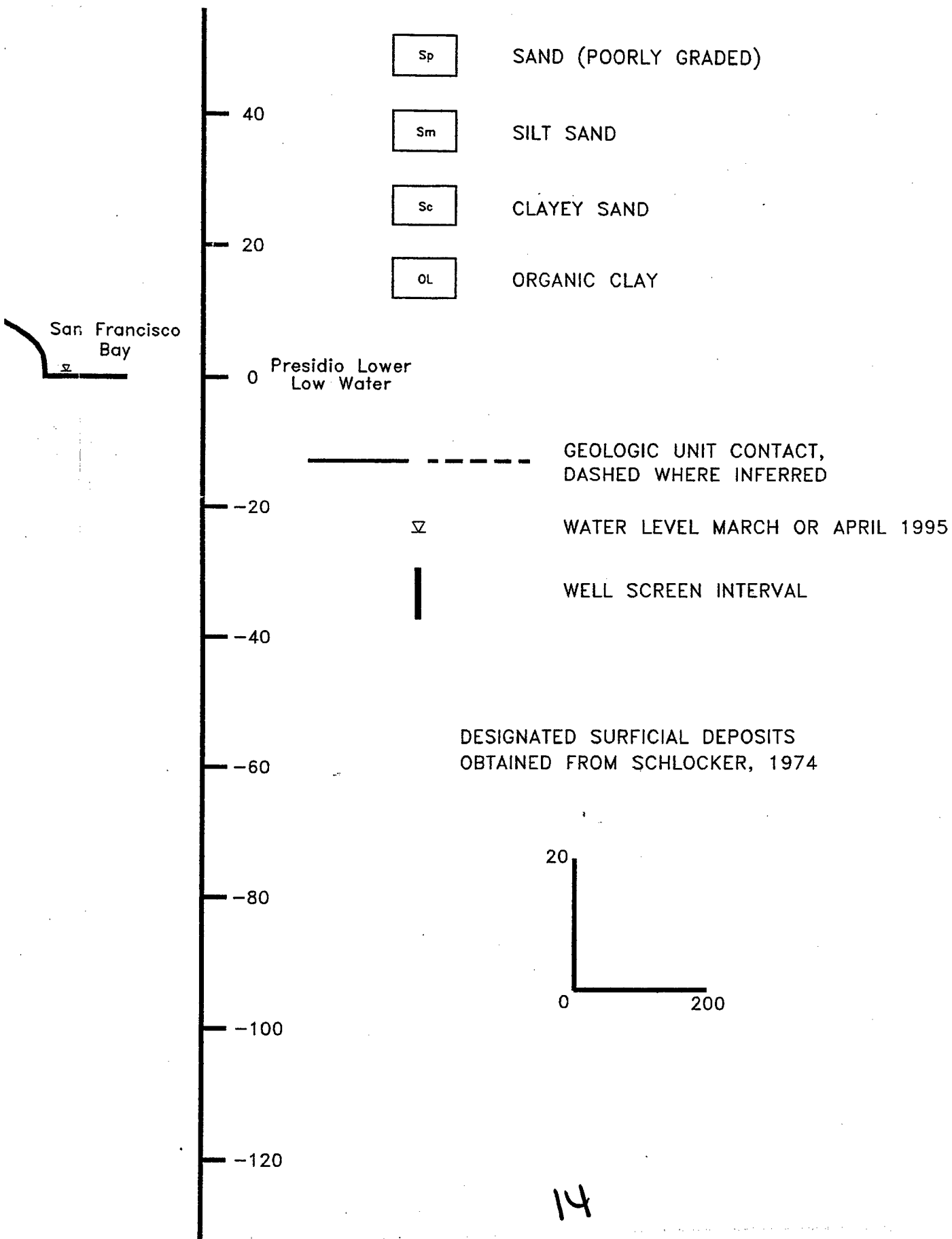




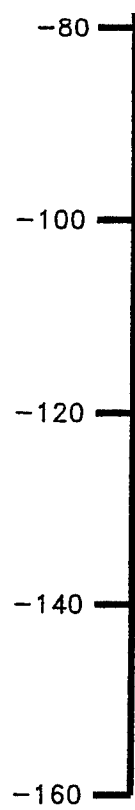
# Fill Site 7



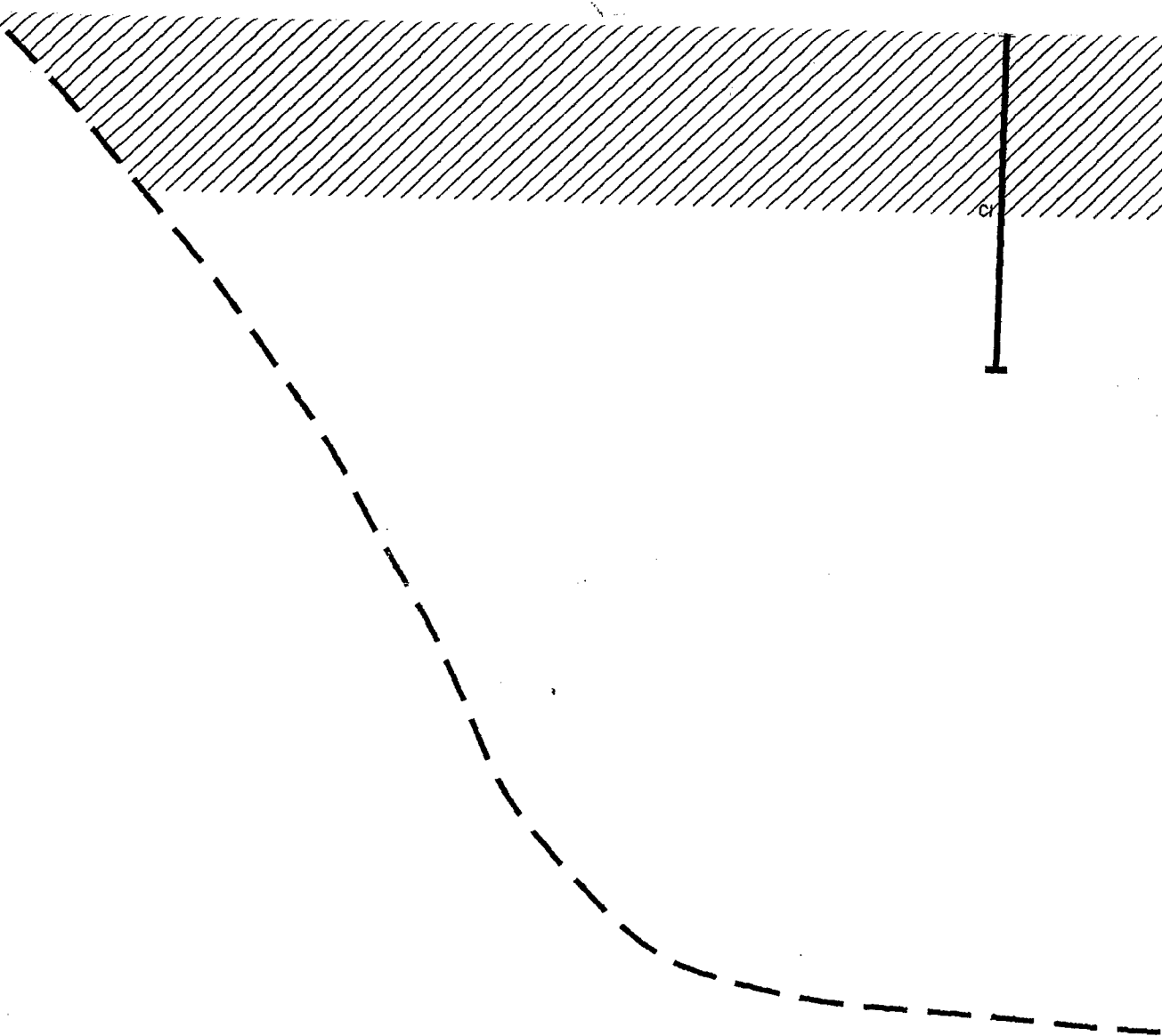
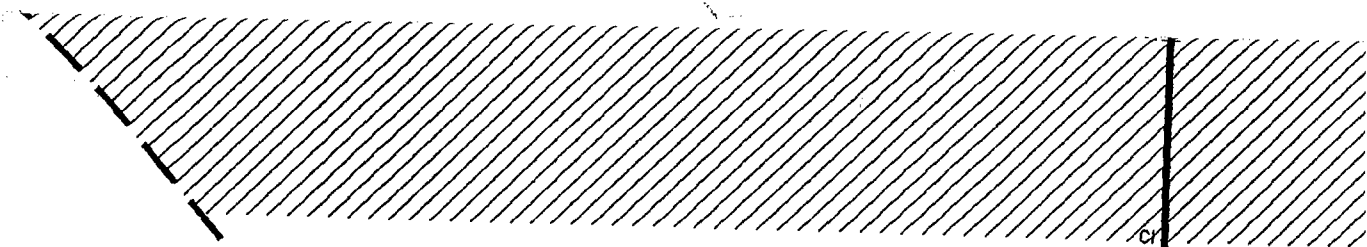








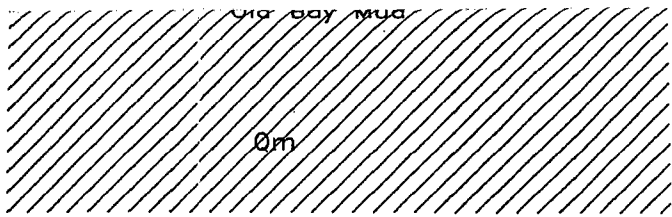




16

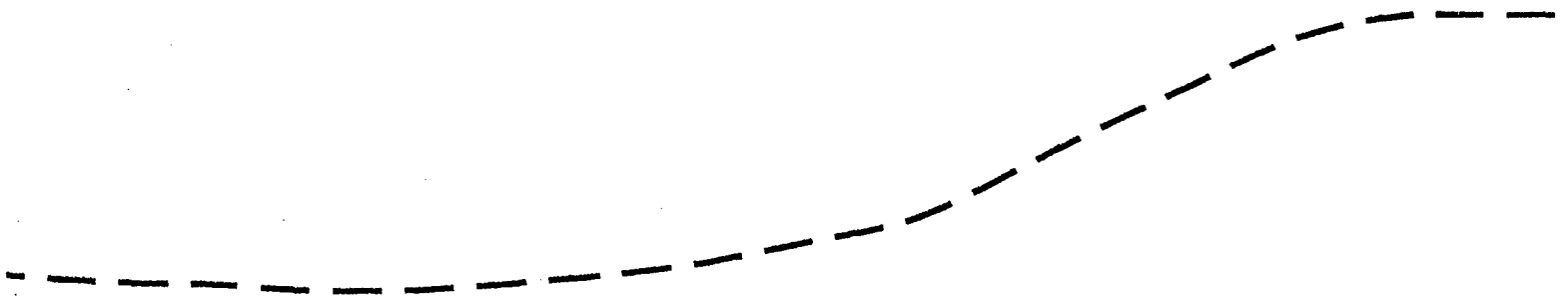
Franciscan





Old Bay Mud

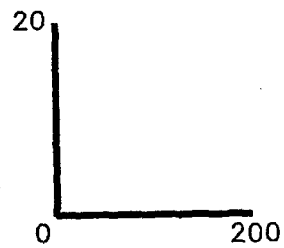
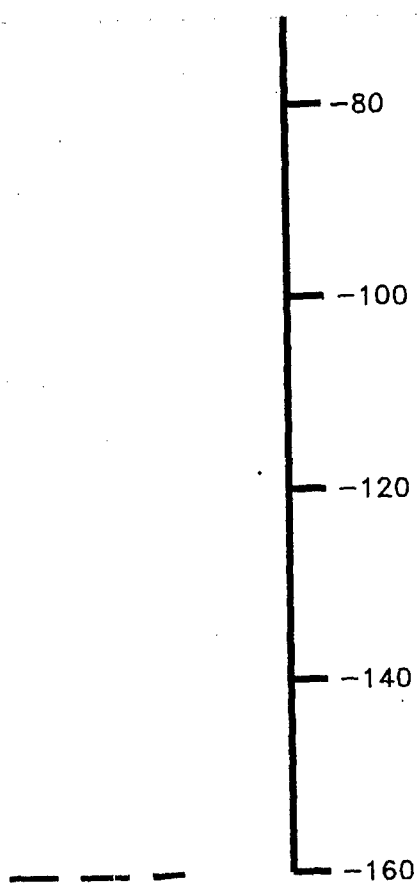
Qm



Franciscan Formation Bedrock

17





**DAMES & MOORE**

**REGIONAL CROSS SECTION A-A'  
PRESIDIO OF SAN FRANCISCO**

PSF25135\DV1

Date: January 1997

Figure 2.3-6



**B**  
South

Elevation  
(feet above Presidio Lower Low Water)

400  
375  
350  
325  
300  
275





2

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Lobos Cre

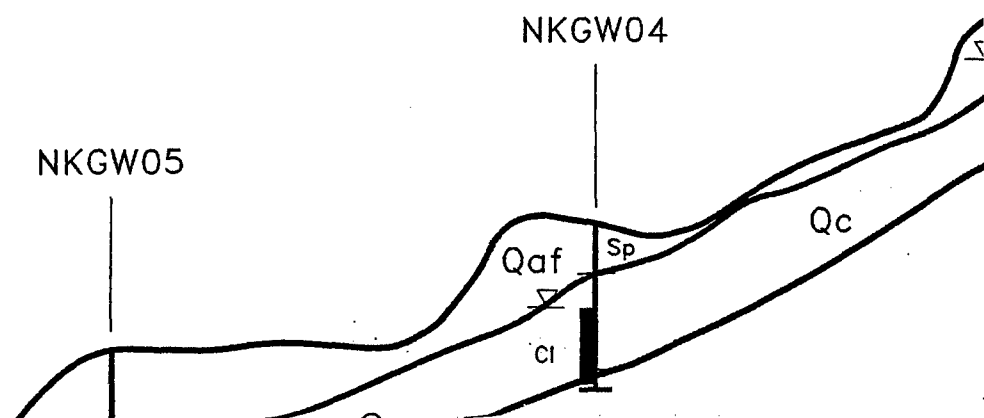
General Direction  
of Groundwater Flow





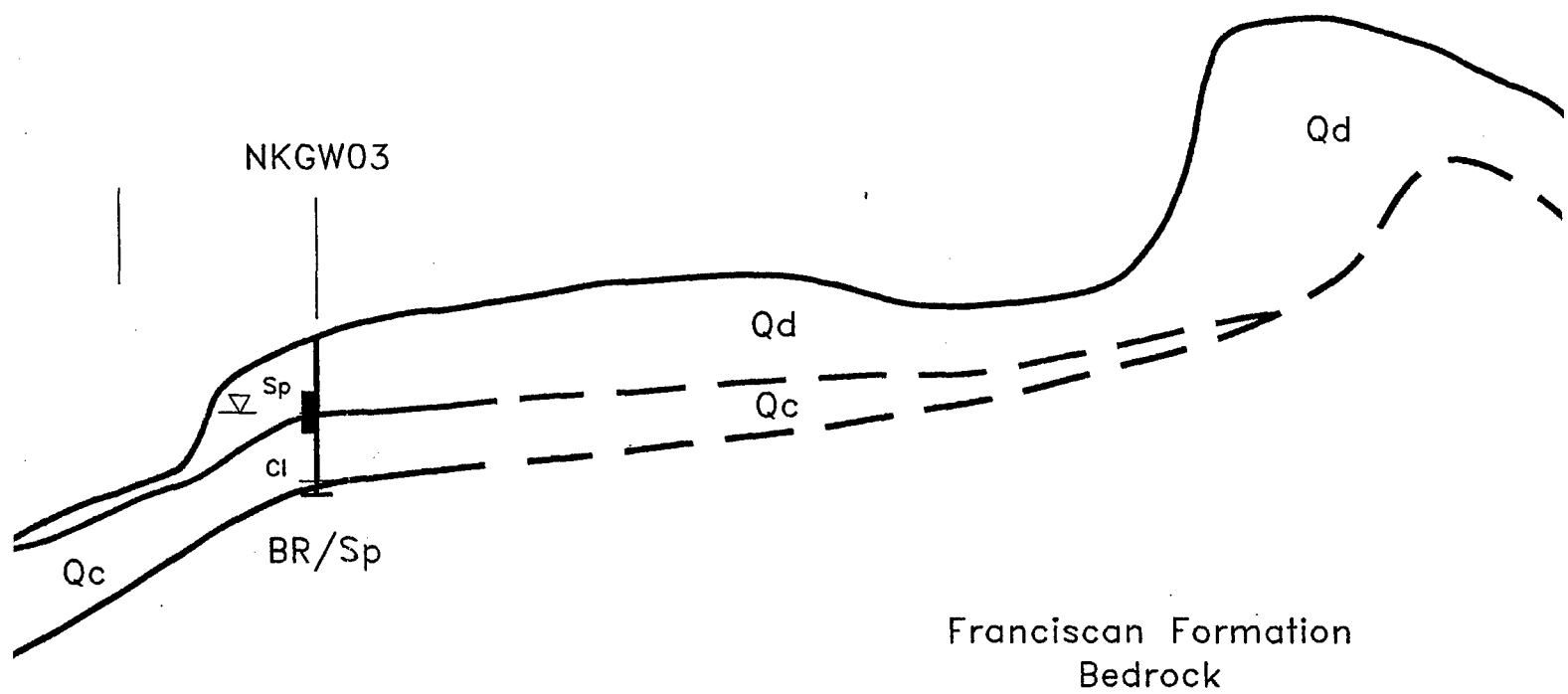
## Creek Groundwater Basin

Nike Facility



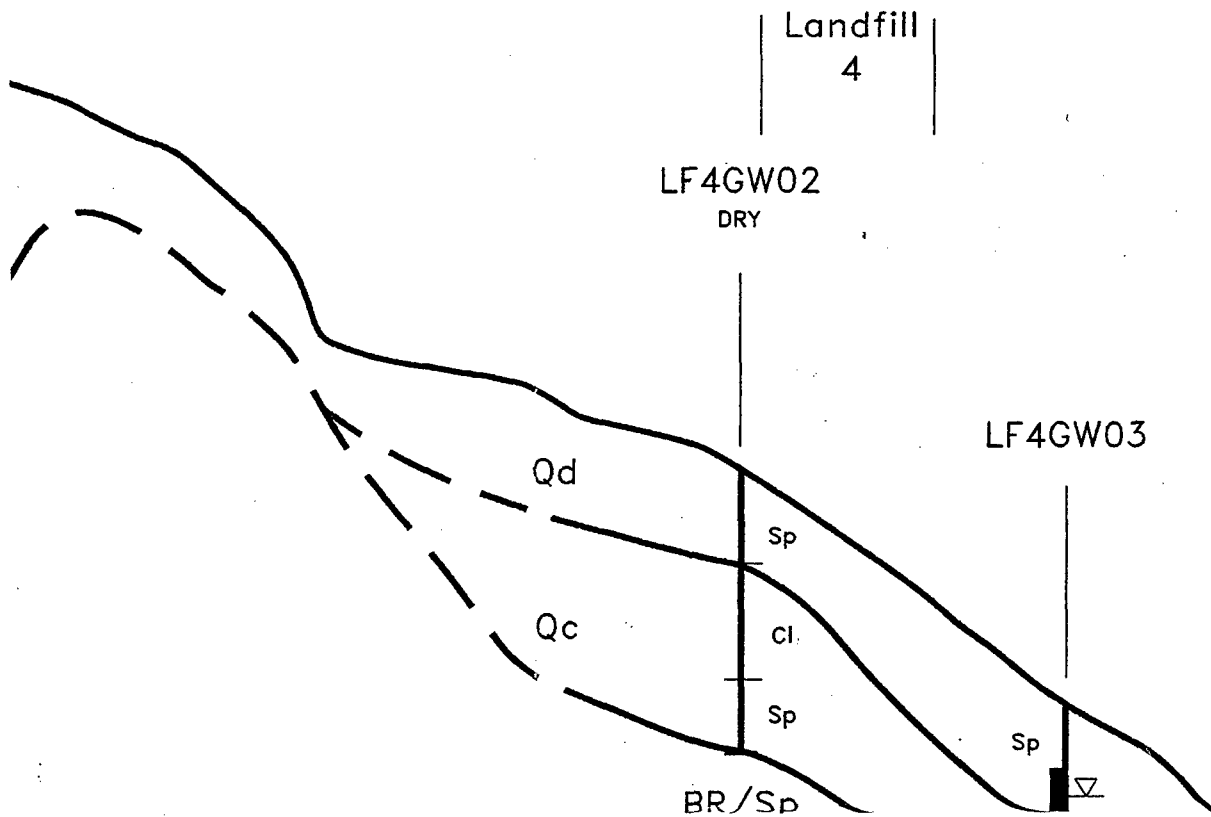


4





5





6

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Marina Ground



7

---

Groundwater Basin

---

Battery



8

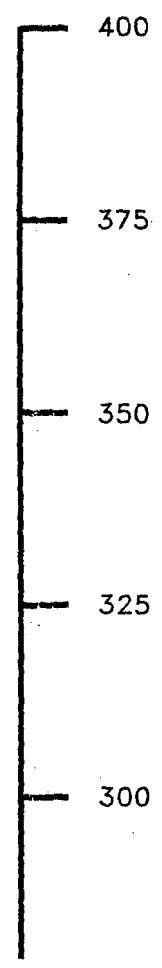
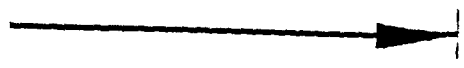


9

**B'**

North

Elevation  
(feet above Presidio Lower Low Water)



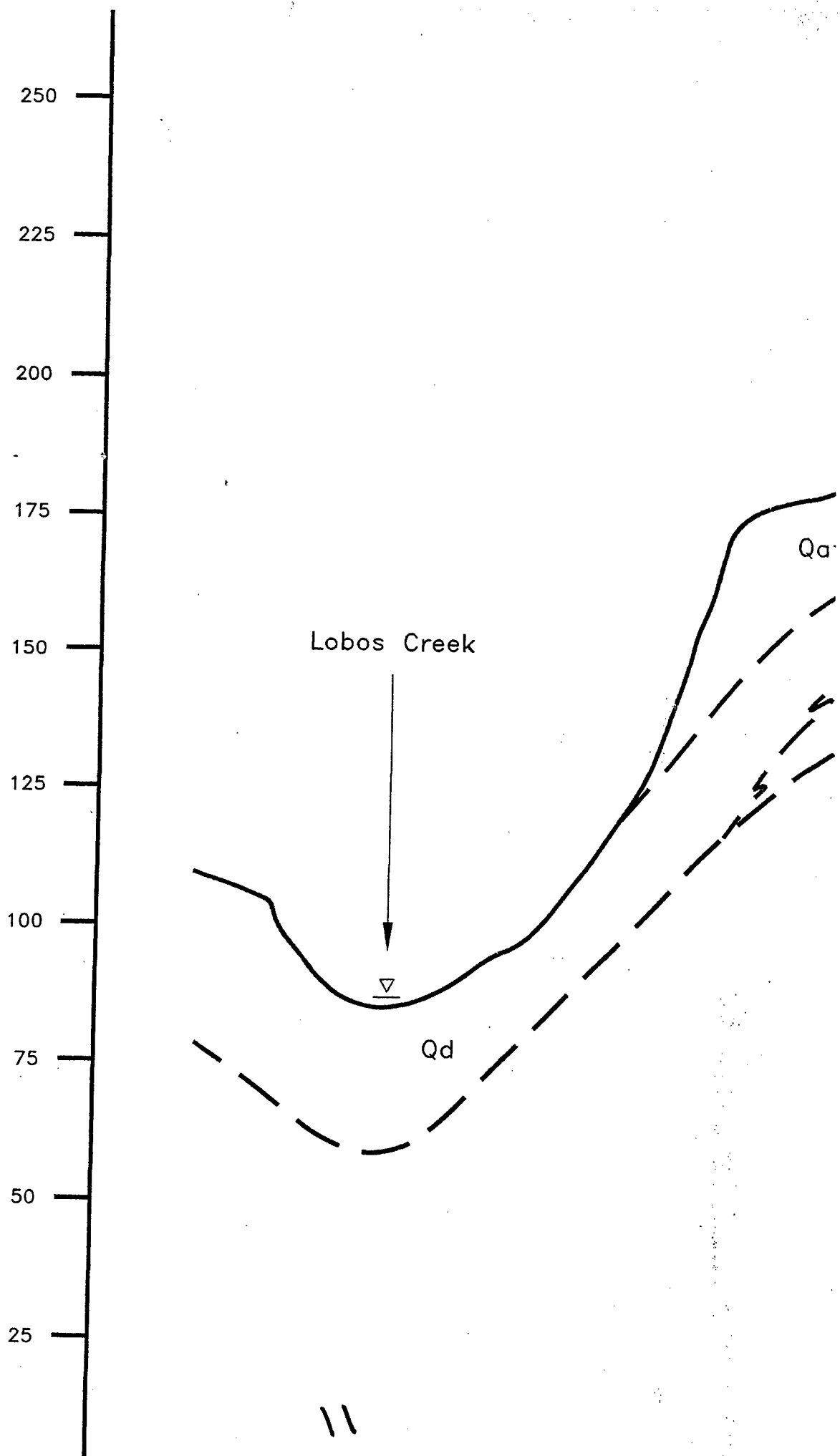


## EXPLANATION

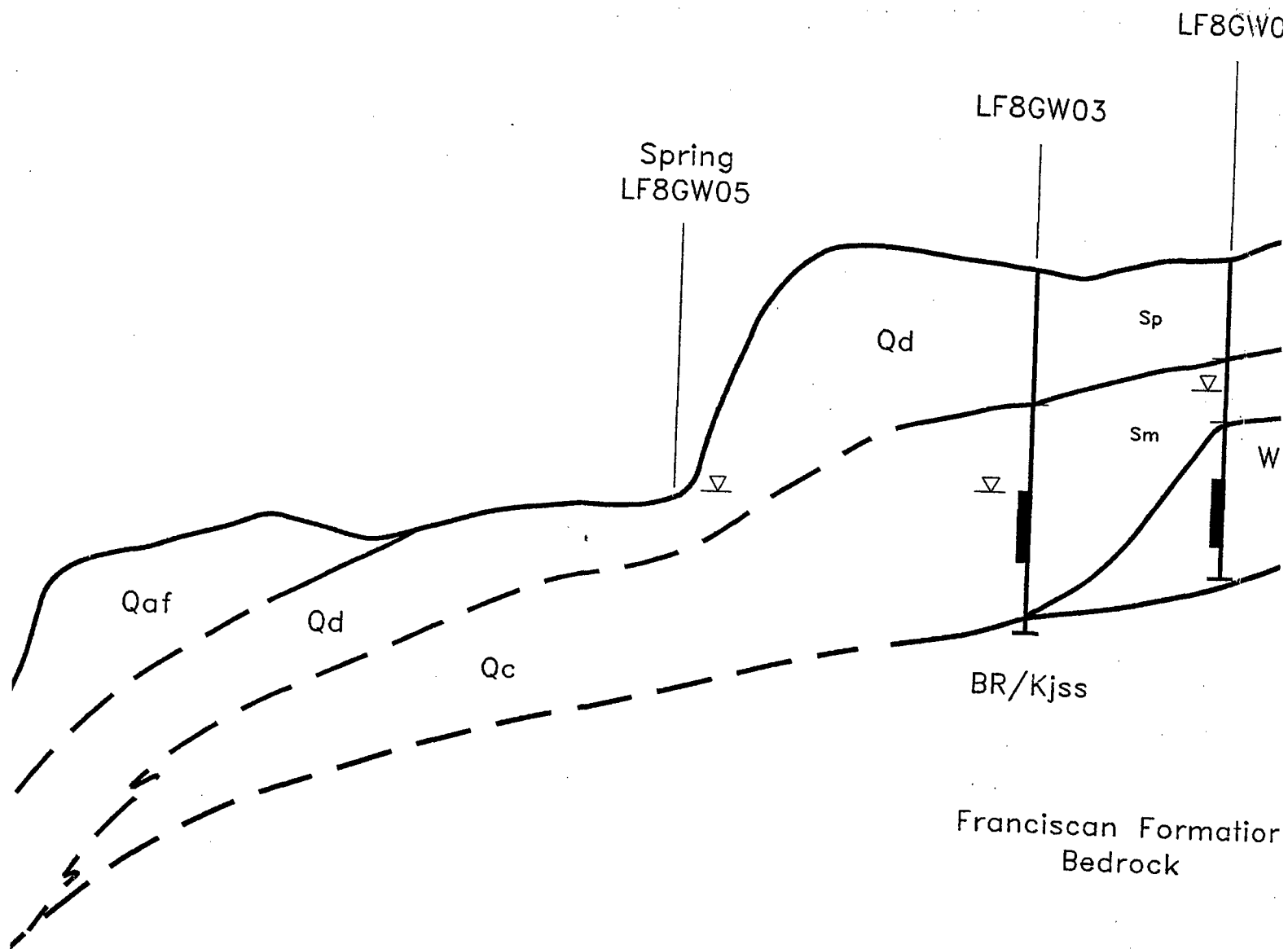
### GEOLOGIC UNIT

	Qaf	ARTIFICIAL FILL
wer Low Water)	Qb	MODERN BEACH DEPOSITS
400	Qu	UNDIVIDED SURFICIAL DEPOSITS
375	Qsr	SLOPE DEBRIS AND RAVINE FILL
350	Qd	DUNE SAND
	Qc	COLMA FORMATION
325	WBR	WEATHERED BEDROCK OF THE FRANCISCAN FORMATION
300	BR/Sp	SERPENTINITE BEDROCK OF THE FRANCISCAN FORMATION
	BR/Kjss	SANDSTONE BEDROCK OF THE FRANCISCAN FORMATION





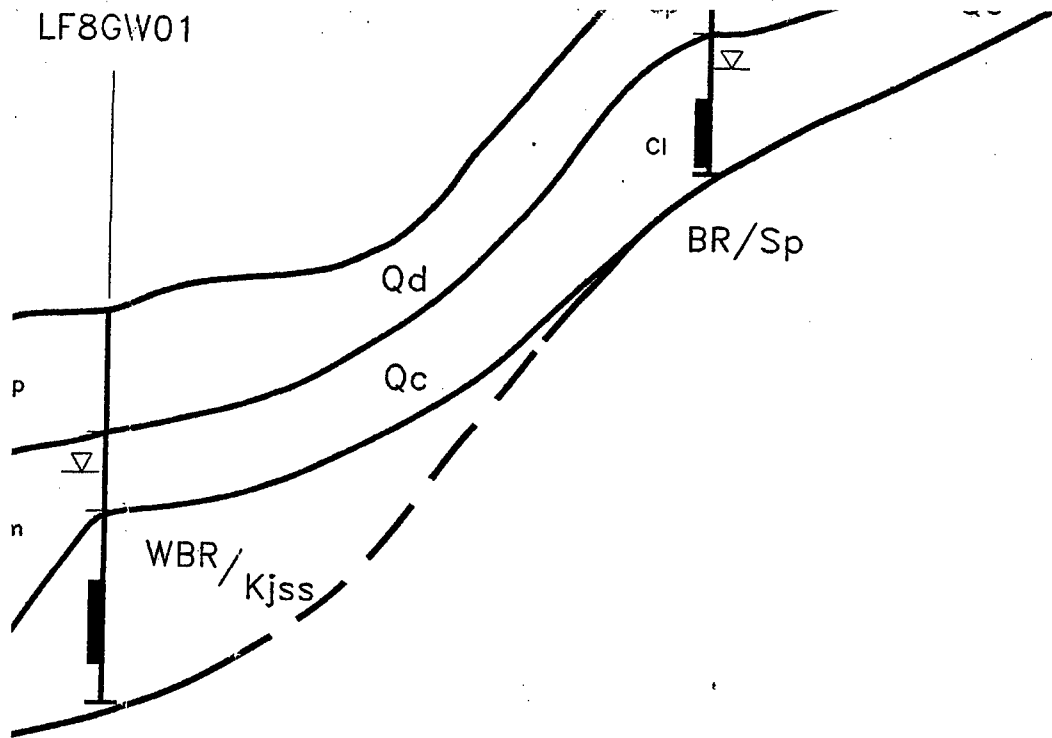






LF8GW01

BR/Sp



Formation  
rock



BR/Sp

Cl

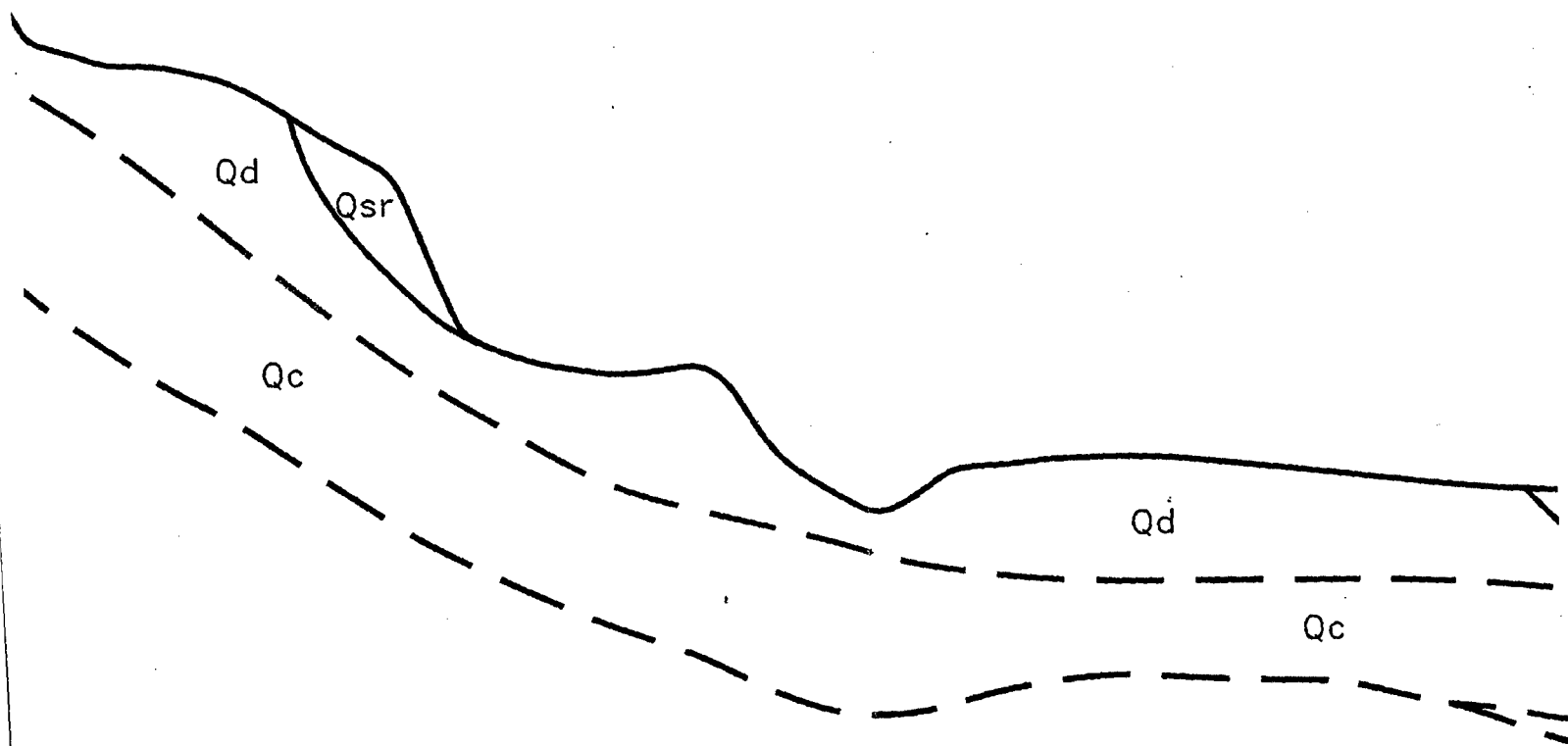
Sc

BR/Sp

Qd

Qc

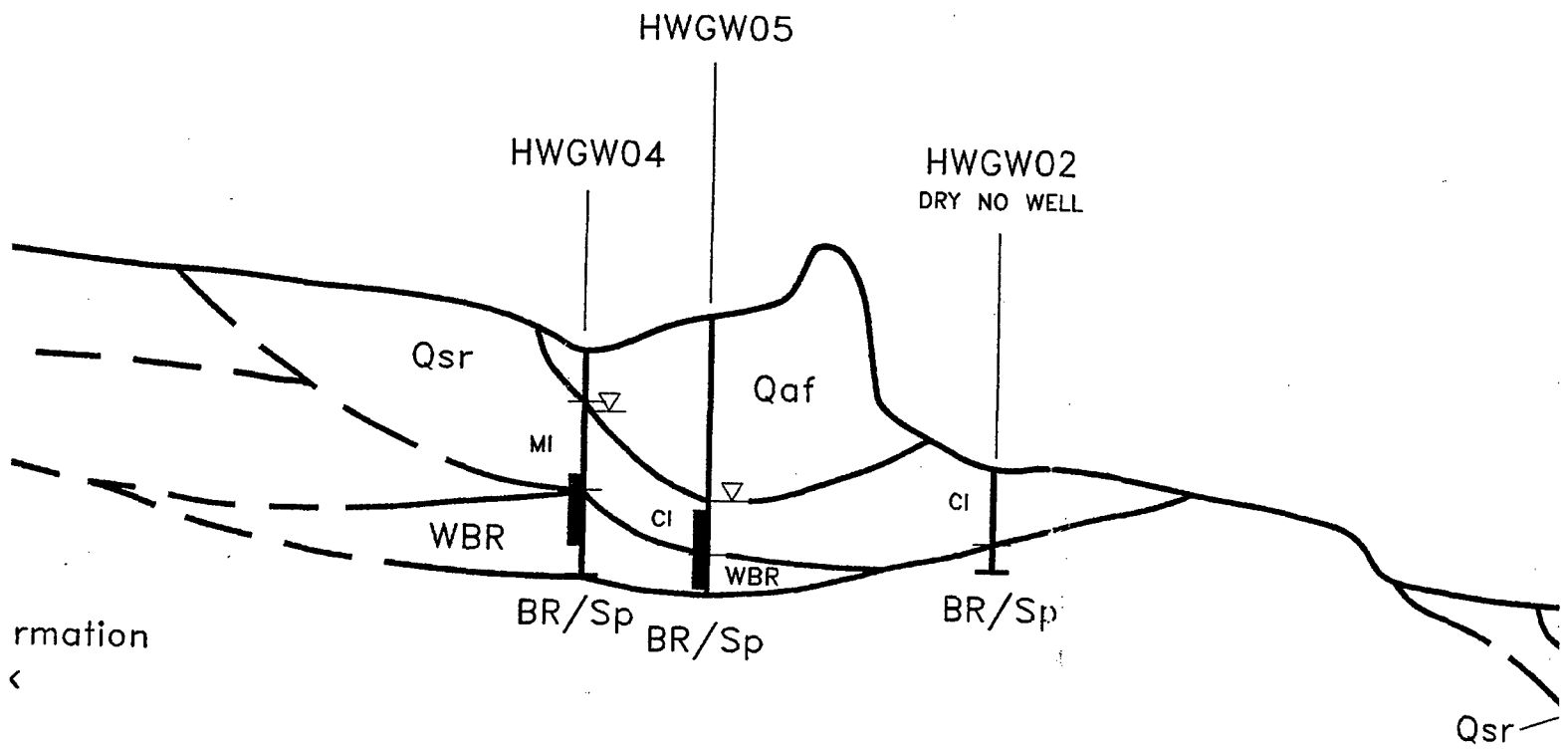




Franciscan Formation  
Bedrock

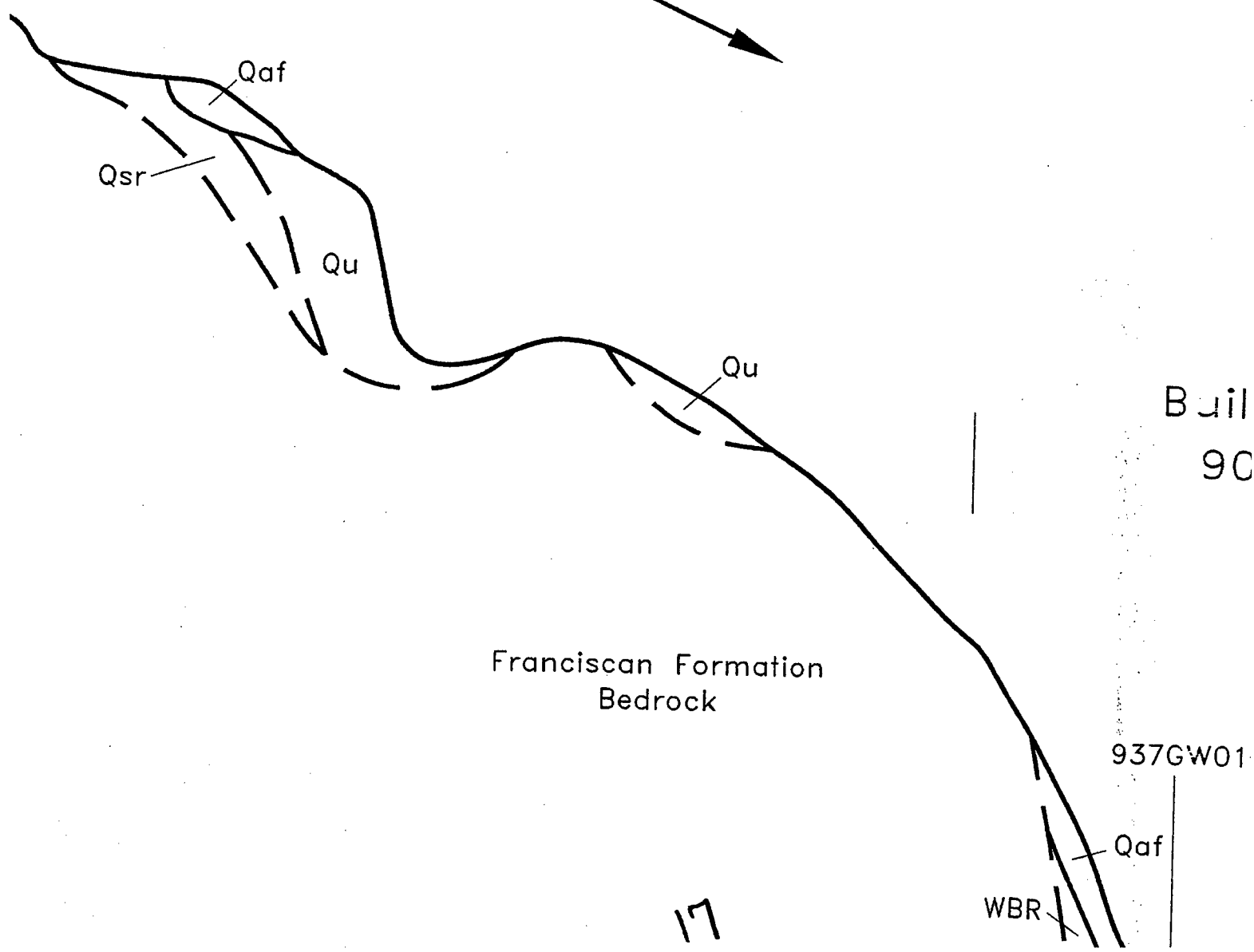
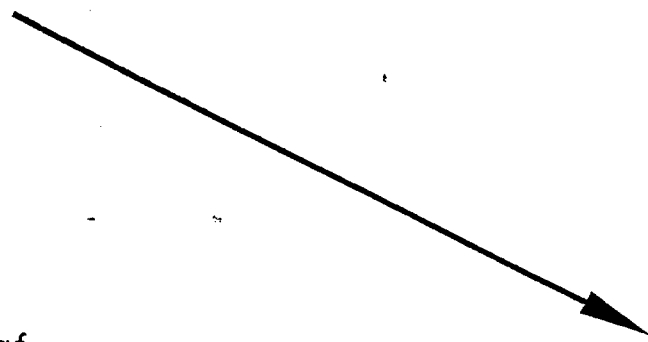


# Battery Howe/Wagner





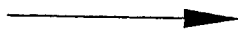
General Direction  
of Groundwater Flow





Building  
900s

San Francisco Bay



137GW01

2af

937GW33

937GW

≡≡

18

275

250

225

200

175

150

125

100

75

50



BR/Kjss

SANDSTONE BEDROCK OF THE  
FRANCISCAN FORMATION

## SOIL CLASSIFICATION

275

250

225

200

175

150

125

100

75

50

Cl

CLAY

Ml

SILT

Sp

SAND (POORLY GRADED)

Sm

SILTY SAND

Sc

CLAYEY SAND



GEOLOGIC UNIT CONTACT,  
DASHED WHERE INFERRED



WATER LEVEL (MARCH OR APRIL 1995)



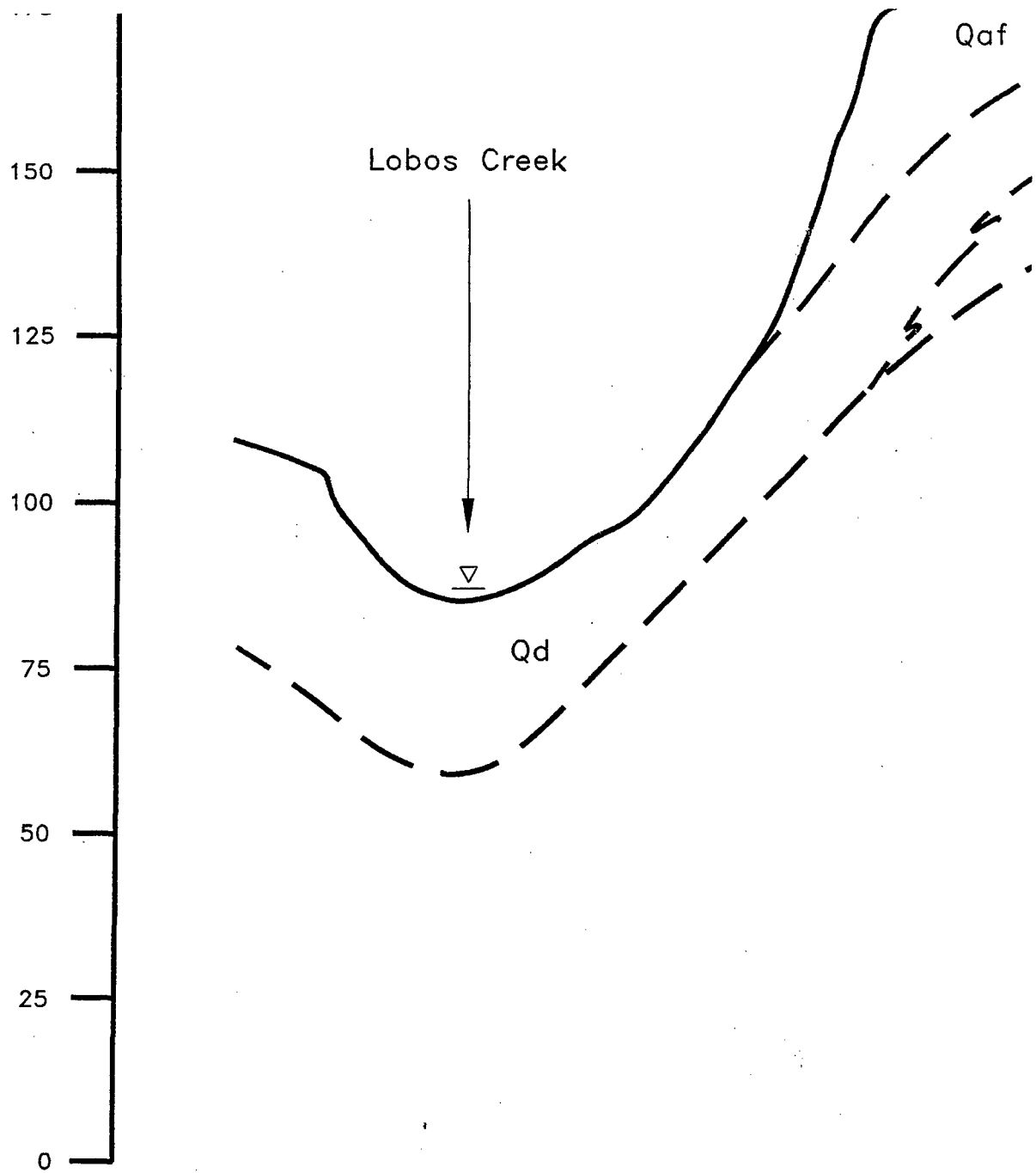
WELL SCREEN INTERVAL

DESIGNATED SURFICIAL DEPOSITS  
OBTAINED FROM SCHLOCKER, 1974

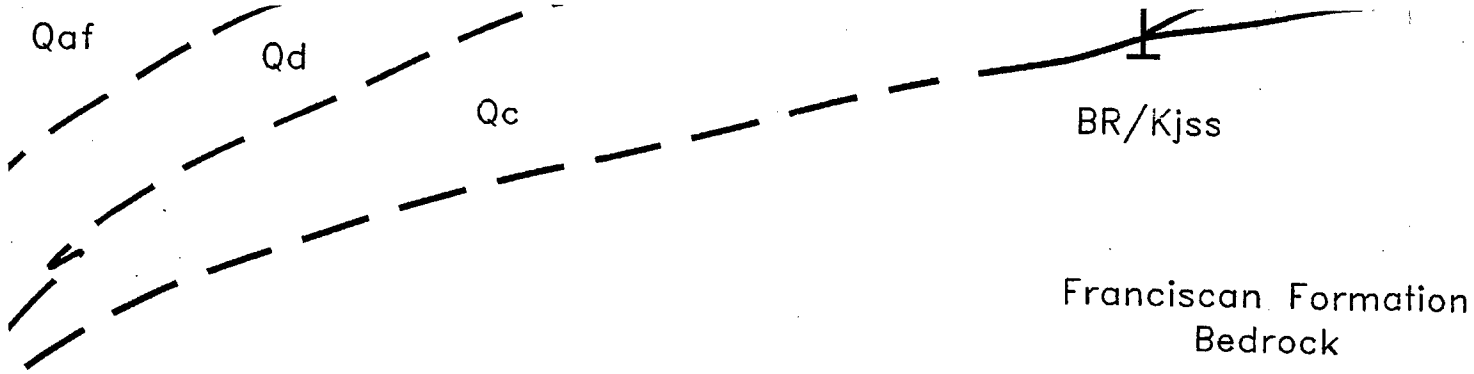
25'

19











tion











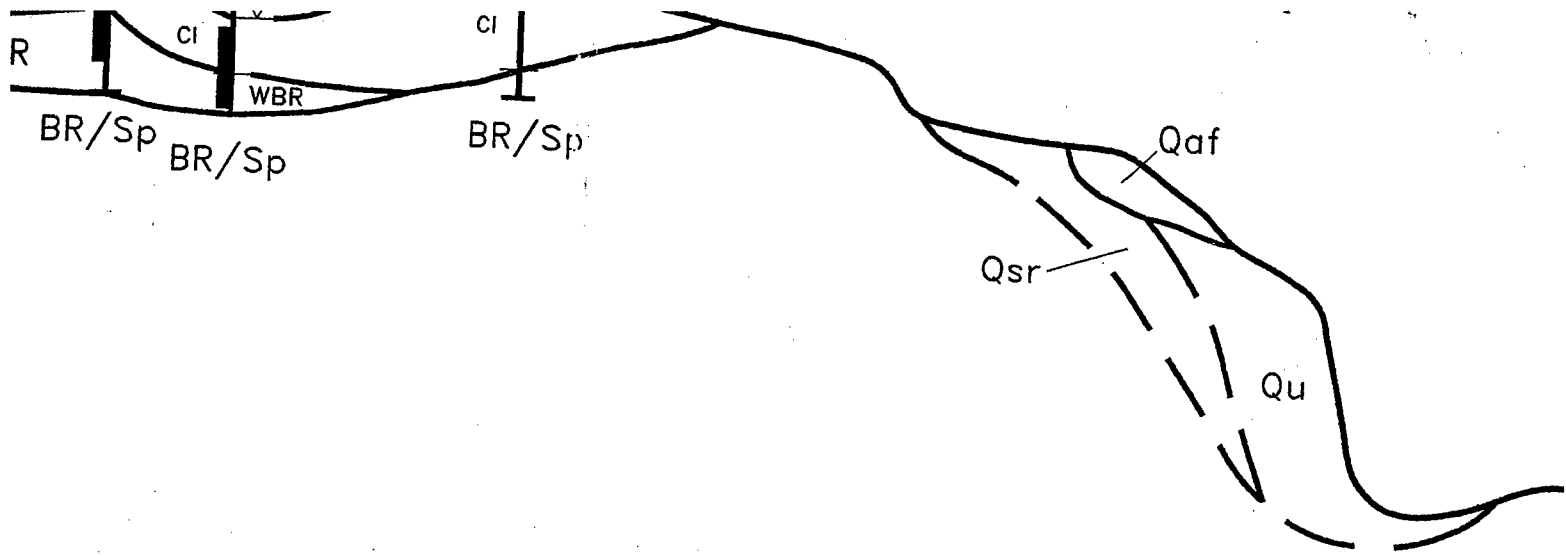
Franciscan Formation  
Bedrock

WBR

BR/Sp B

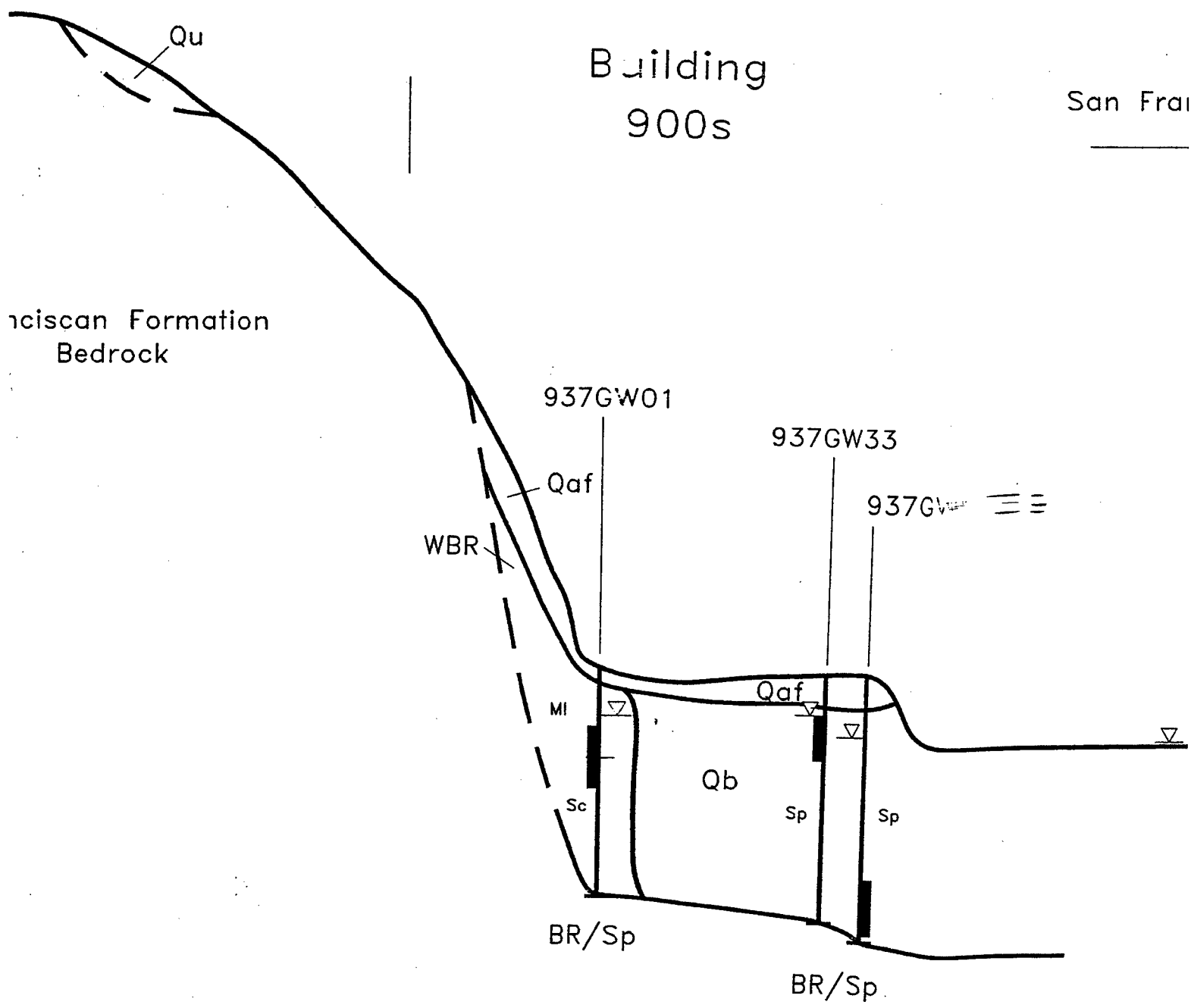
cl





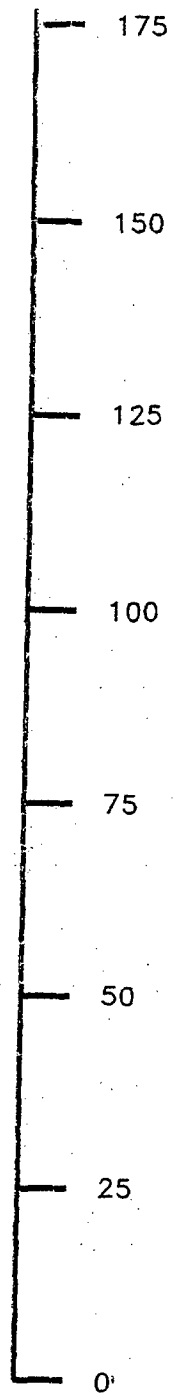
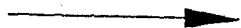
Franc







San Francisco Bay



Sc

CLA'

GEOI  
DASI



WATI



WELL

DESI  
OBT,





Sc

CLAYEY SAND

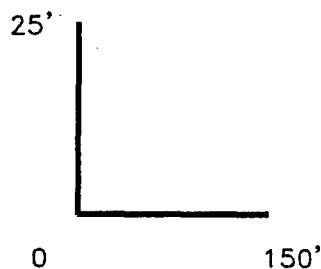
GEOLOGIC UNIT CONTACT,  
DASHED WHERE INFERRED

▽

WATER LEVEL (MARCH OR APRIL 1995)

WELL SCREEN INTERVAL

DESIGNATED SURFICIAL DEPOSITS  
OBTAINED FROM SCHLOCKER, 1974



**DAMES & MOORE**

**REGIONAL CROSS SECTION B-B'  
PRESIDIO OF SAN FRANCISCO**

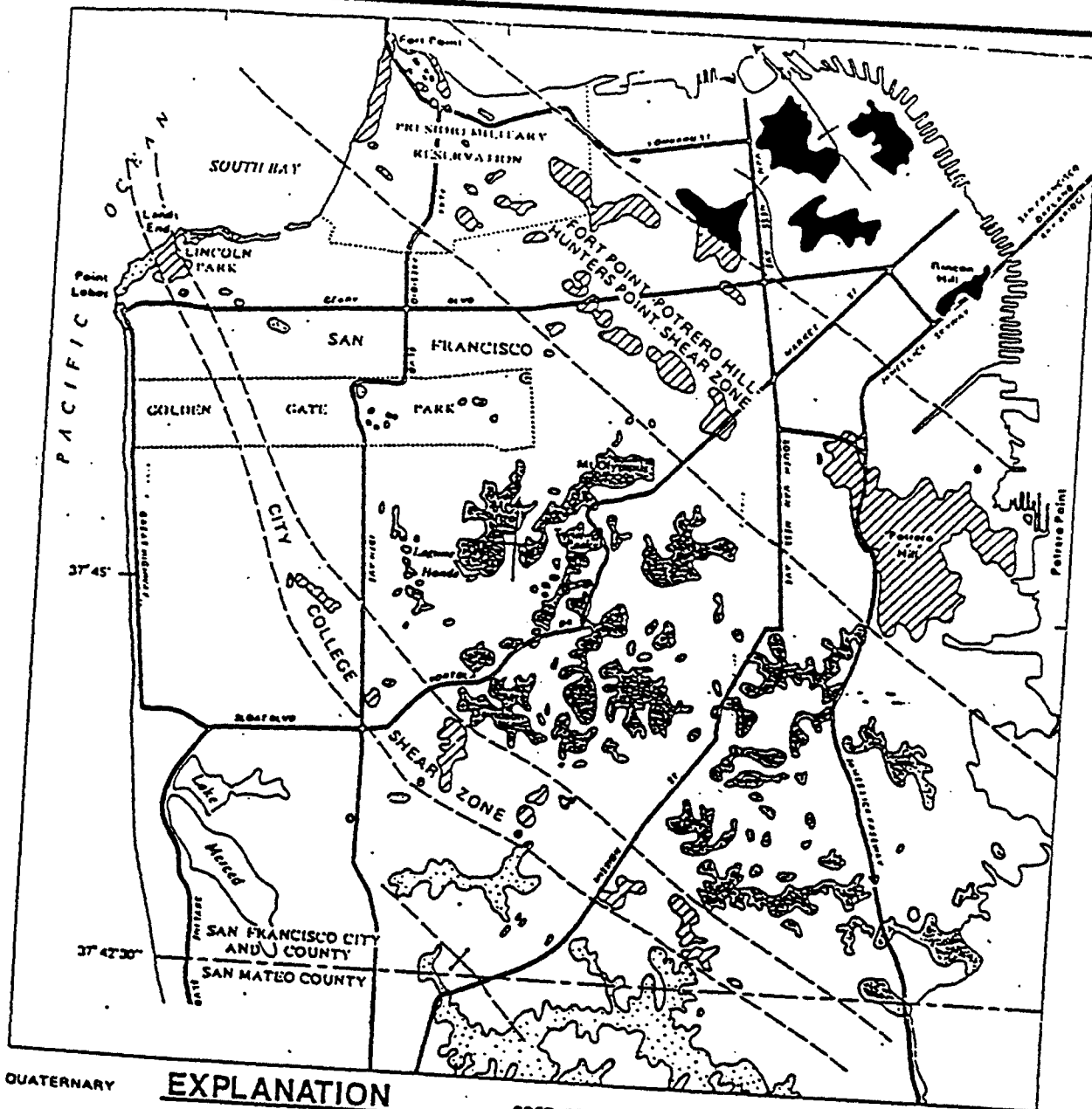
PSF25136\DV1

Date: January 1997

Figure 2.3-7

29





QUATERNARY

## EXPLANATION

CRETACEOUS AND JURASSIC



Surficial rocks

Great Valley sequence



Sandstone and shale  
Rocks in the Point Lobos area, west of the City College shear zone, are tentatively assigned to the Great Valley sequence

Franciscan Formation



Radiolarian chert, greenstone, and some sandstone and shale

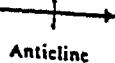


Sandstone and shale

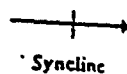


Sheared rocks  
Includes fragments of Franciscan Formation, Great Valley sequence, and serpentinite

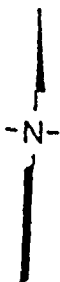
Contact



Anticline



Syncline



Miles



DAMES & MOORE

GENERALIZED GEOLOGY  
SHOWING MAJOR  
SHEAR ZONES & FOLD AXES

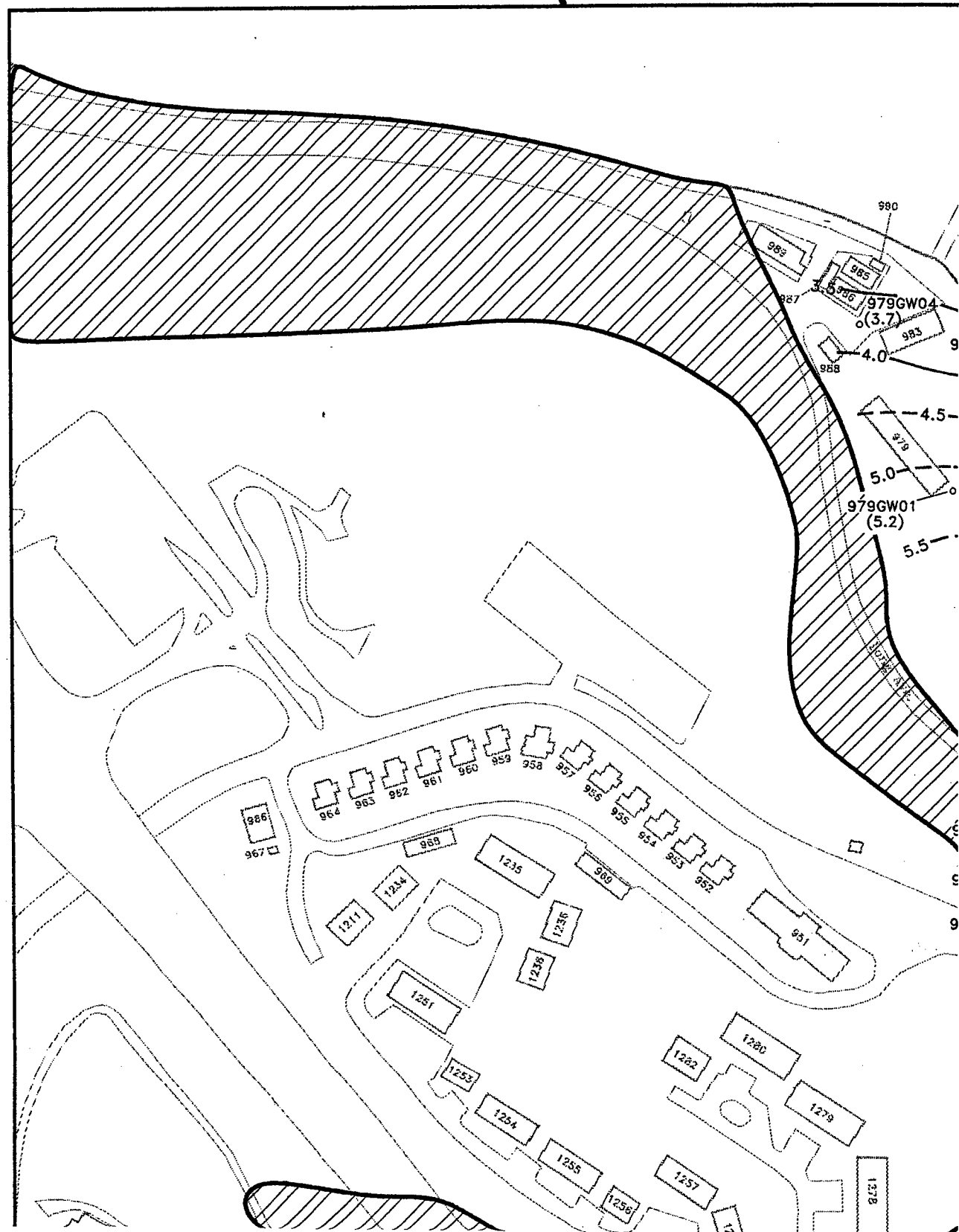
PSF25163\DV2

Date: January 1997

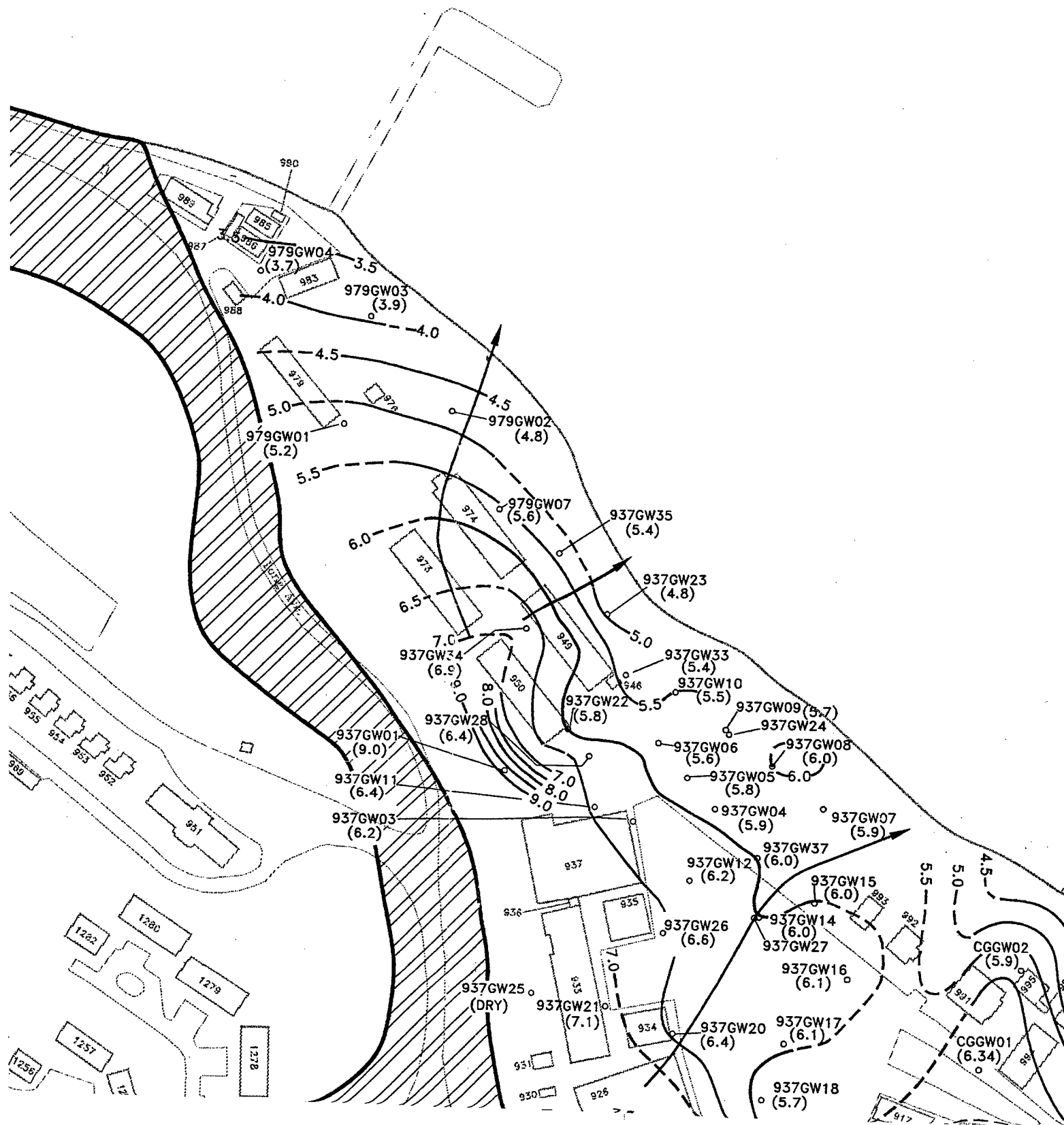
Figure 2.3-8

(from Schlocker, 1974)

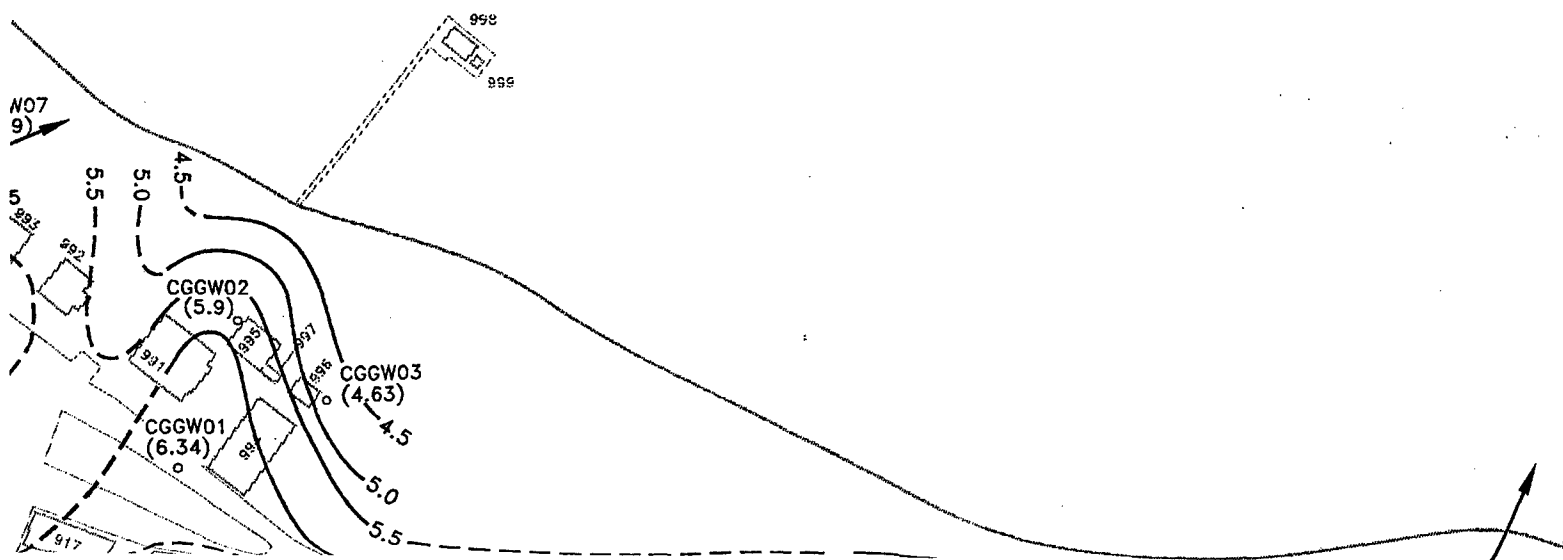












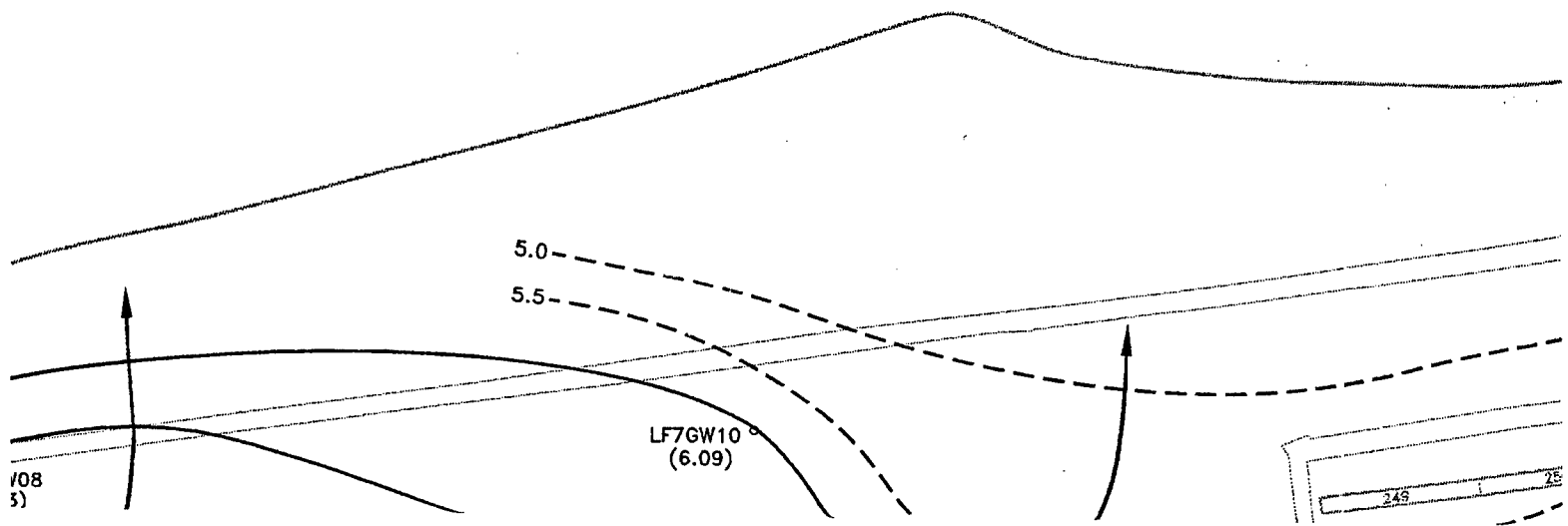


4

*San Francisco Bay*

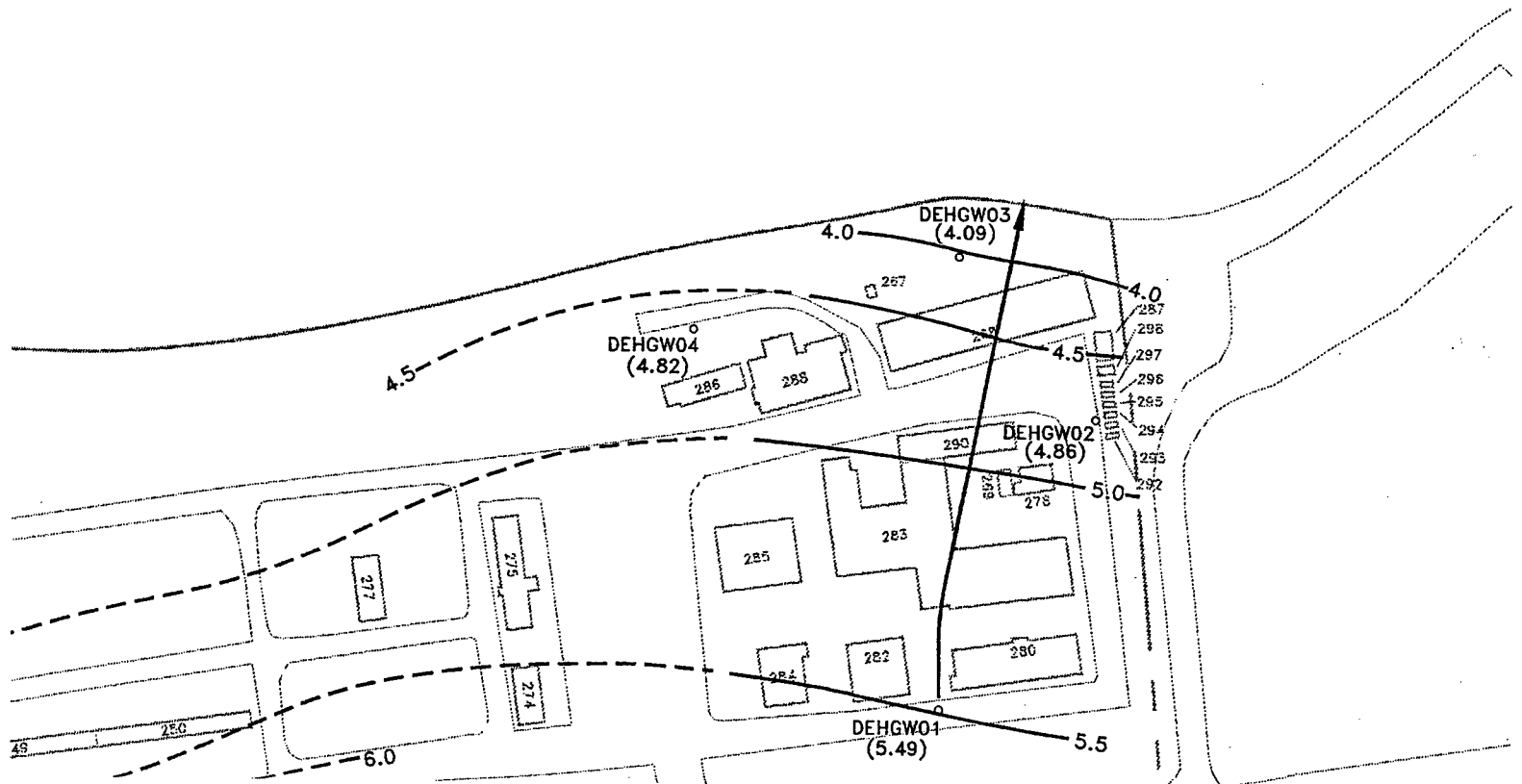








6





7

### EXPLANATION

° SHALLOW MONITORING WELL

(8.49) WATER TABLE ELEVATION TAKEN 3/16/95, 1640-1740 PST  
LOWER LOW TIDE: 1649 PST, 0.2 FT-PLLW

(6.43\*) WATER-LEVEL DATA FOR 3/16/95 WERE NOT  
AVAILABLE; THEREFORE, EQUIVALENT WATER LEVELS  
WERE ESTIMATED BY ADJUSTING WATER LEVELS  
MEASURED ON 4/14/95 BY FLUCTUATIONS OBSERVED  
IN ADJACENT WELLS.

(NM) NO MEASUREMENT

— 4.0 — WATER TABLE CONTOUR (DASHED  
WHERE INFERRED) CONTOUR INTERVAL 0.5 FEET

→ GROUNDWATER FLOW DIRECTION

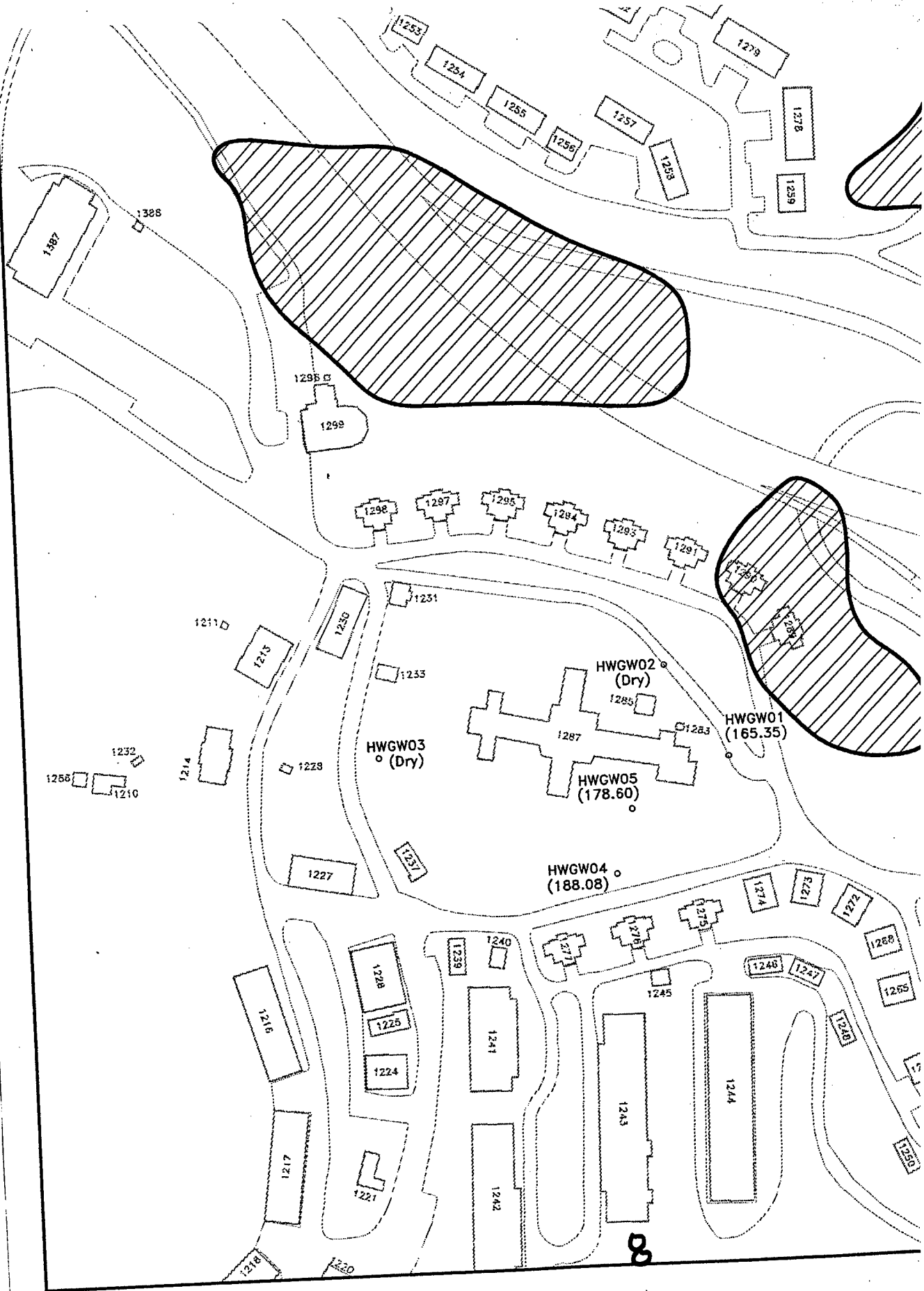


AREA OF BEDROCK OUTCROP

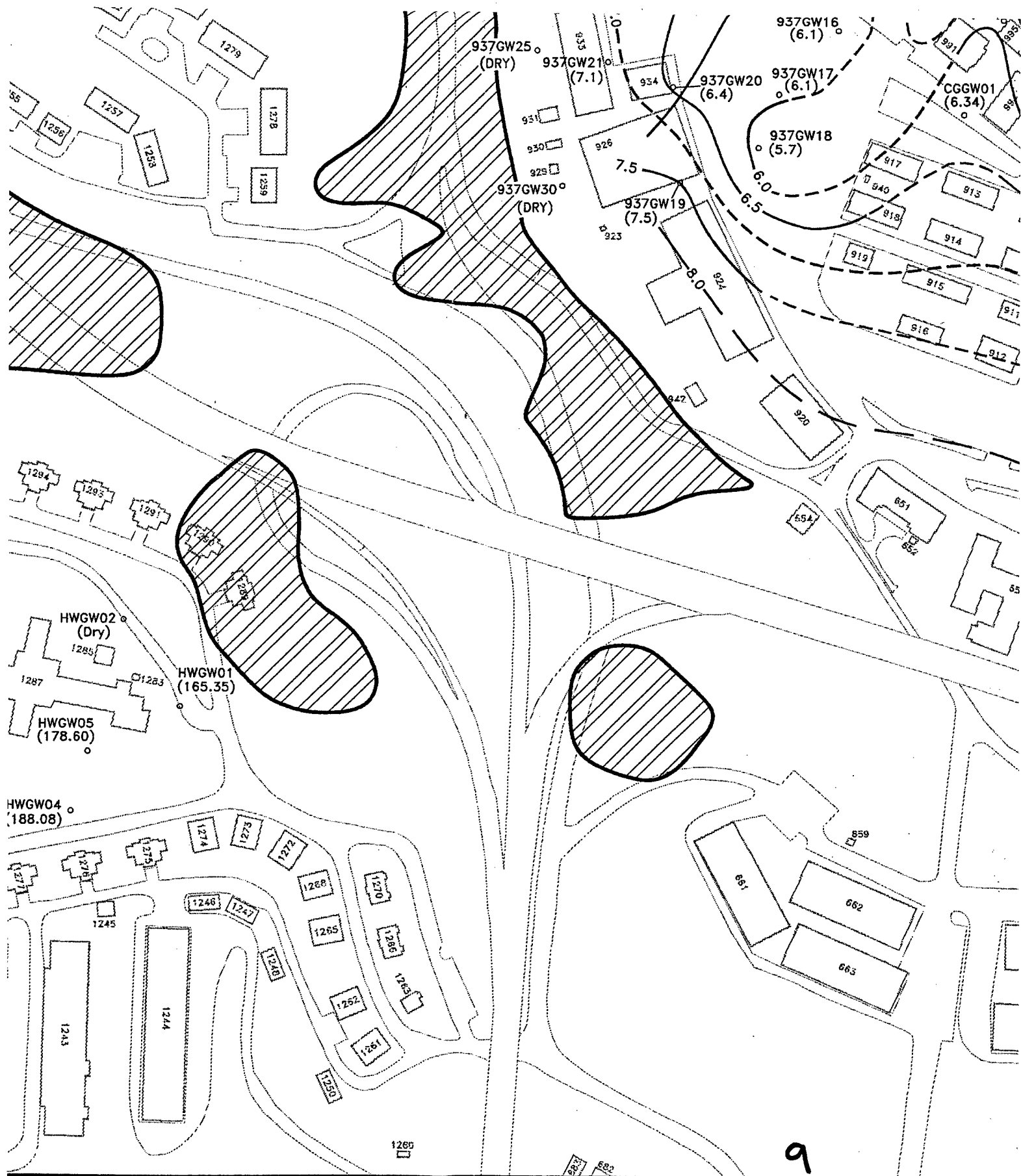
ELEVATIONS IN FEET-PRESIDIO  
LOWER LOW WATER

NOTE: SHALLOW WELLS ARE SCREENED  
ACROSS THE WATER TABLE





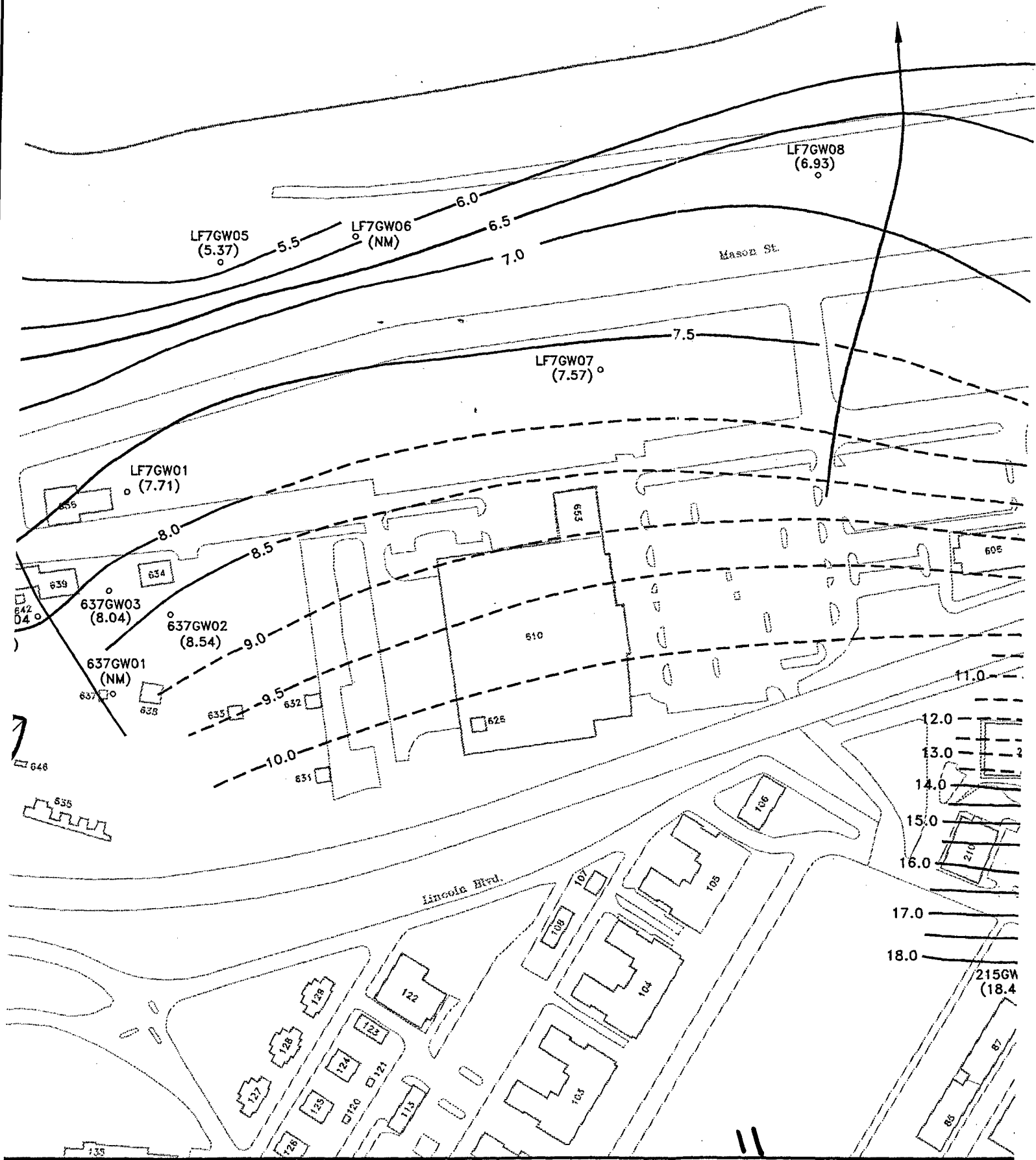












LF7GW05  
(5.37)

LF7GW06  
(NM)

LF7GW08  
(6.93)

LF7GW07  
(7.57)

LF7GW01  
(7.71)

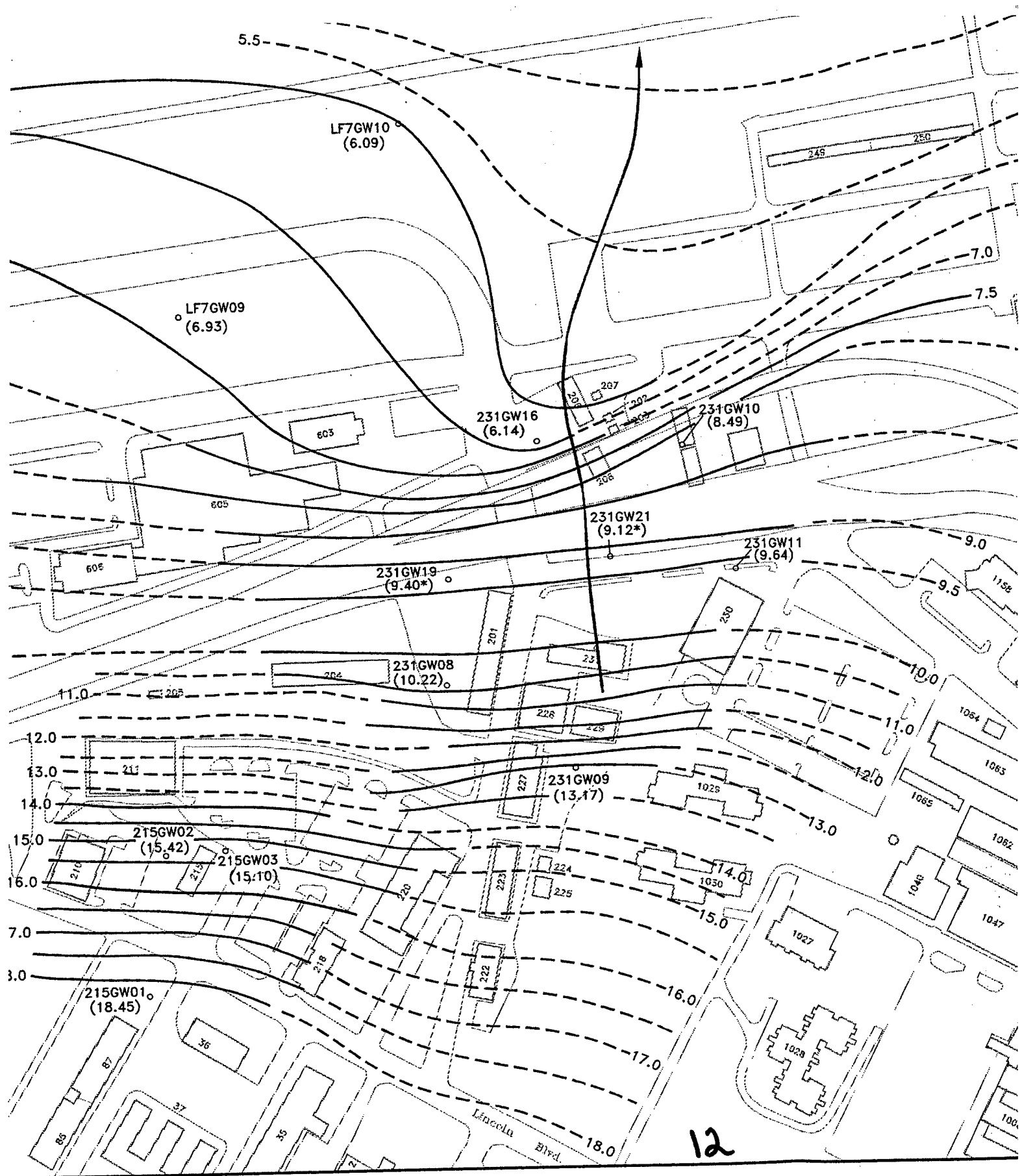
637GW03  
(8.04)

637GW02  
(8.54)

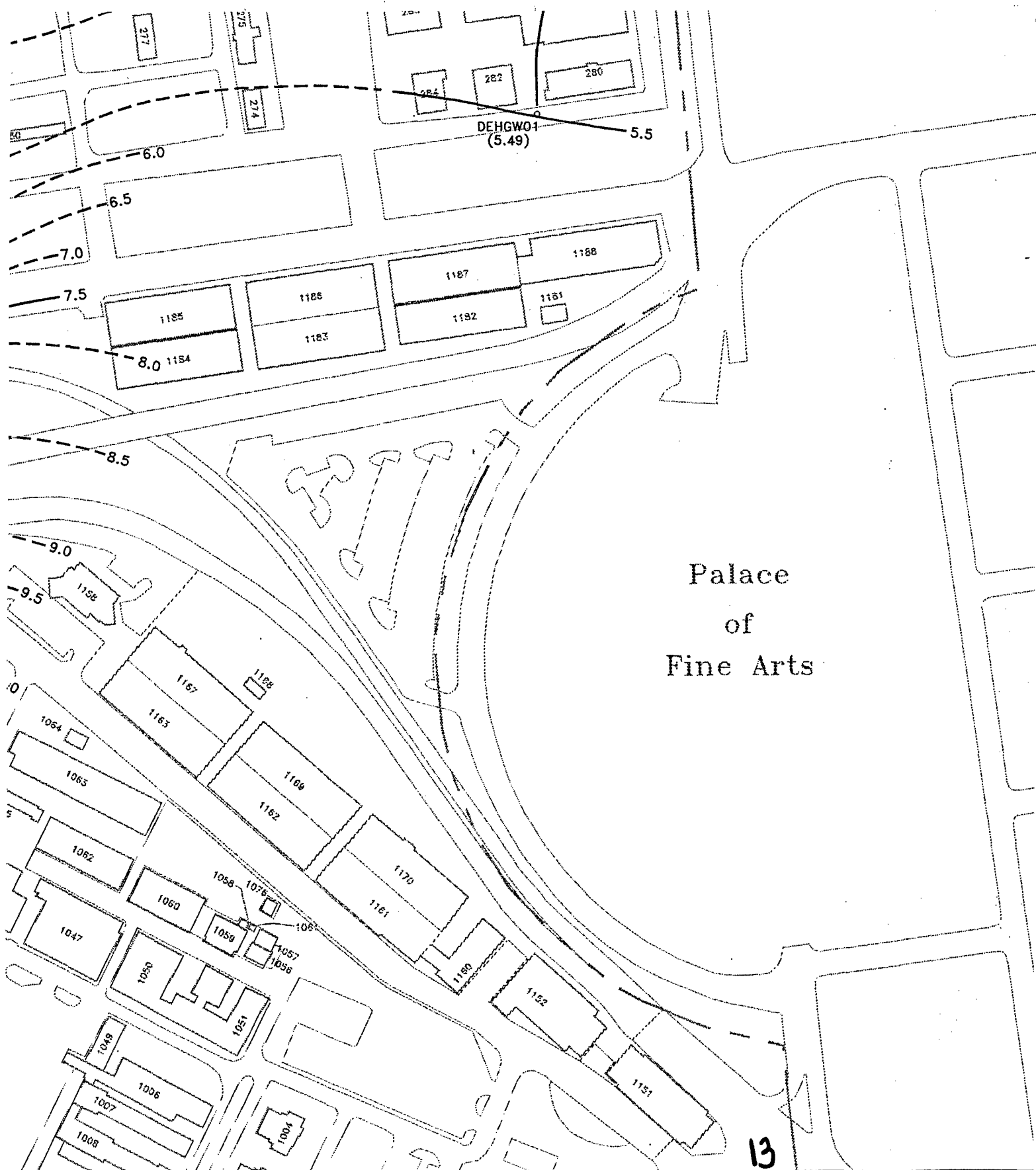
637GW01  
(NM)

215GW  
(18.4)



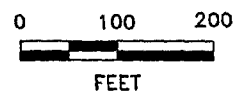
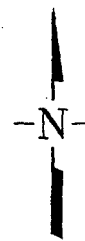
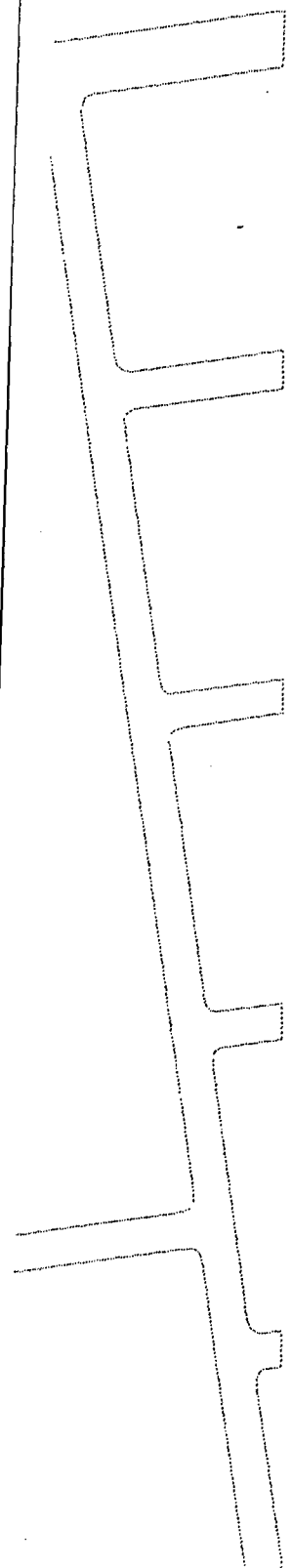






Palace  
of  
Fine Arts





**DAMES & MOORE**

**CRISSY FIELD GROUNDWATER AREA  
WATER TABLE ELEVATION MAP  
PRESIDIO OF SAN FRANCISCO**

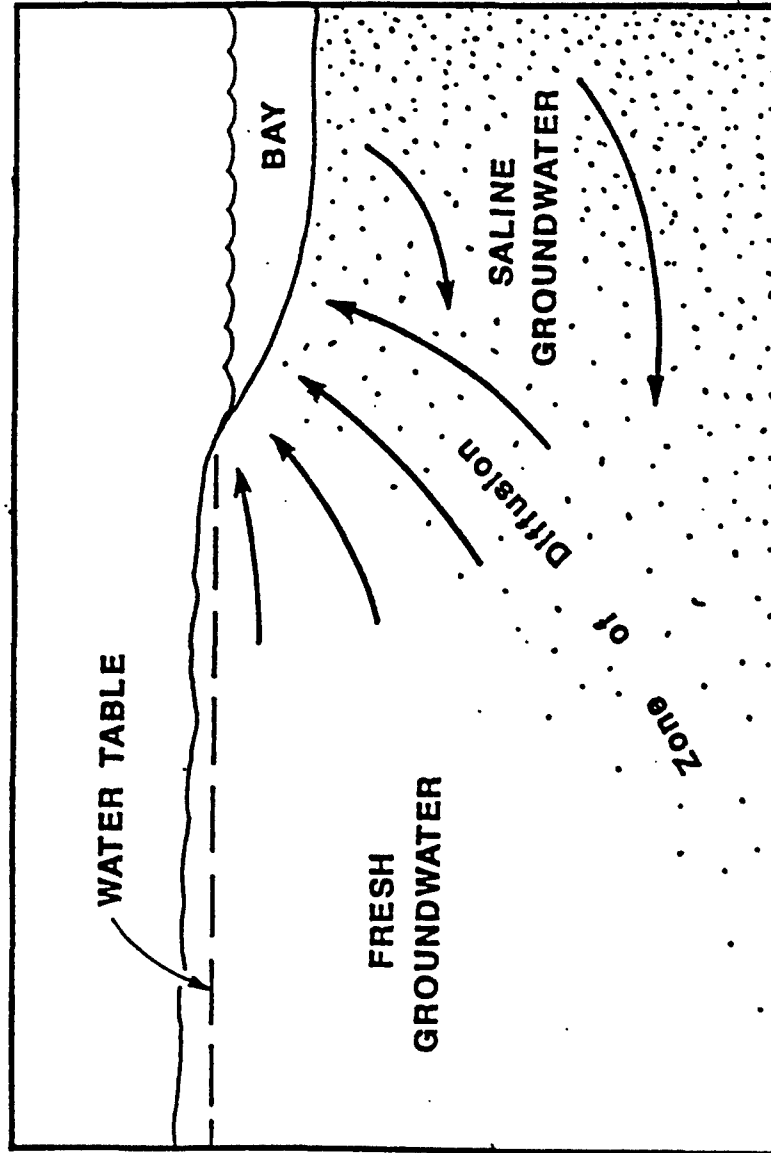
PSF25054\DV2

Date: January 1997

Figure 2.3-9

14






EXPLANATION



GROUNDWATER  
FLOW DIRECTION

 DAMES & MOORE

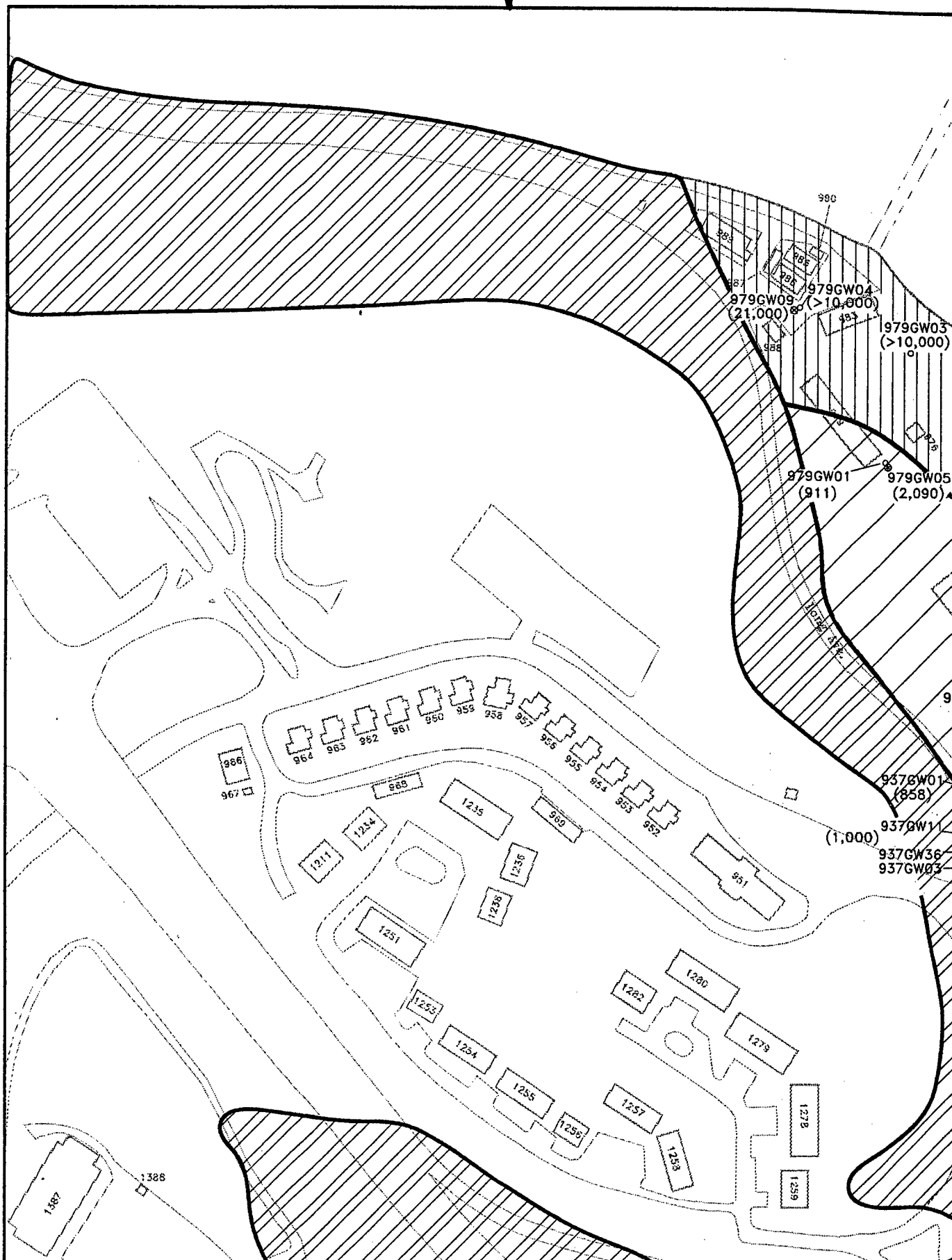
SCHEMATIC ILLUSTRATION  
OF A COASTAL AQUIFER

PSF25120/DV2

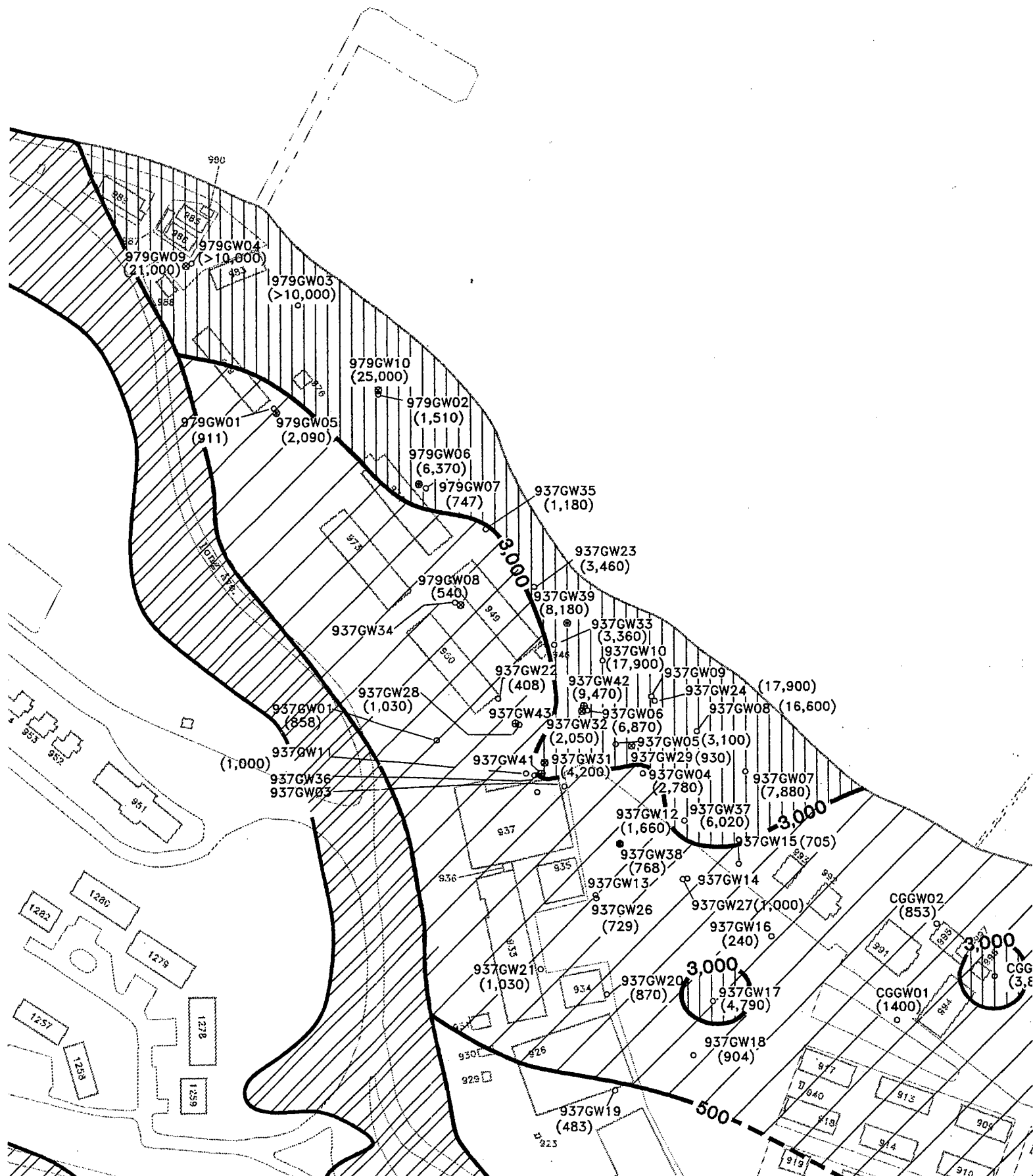
Date: January 1997 Figure 2.3-10

(Modified from Walton, 1985)

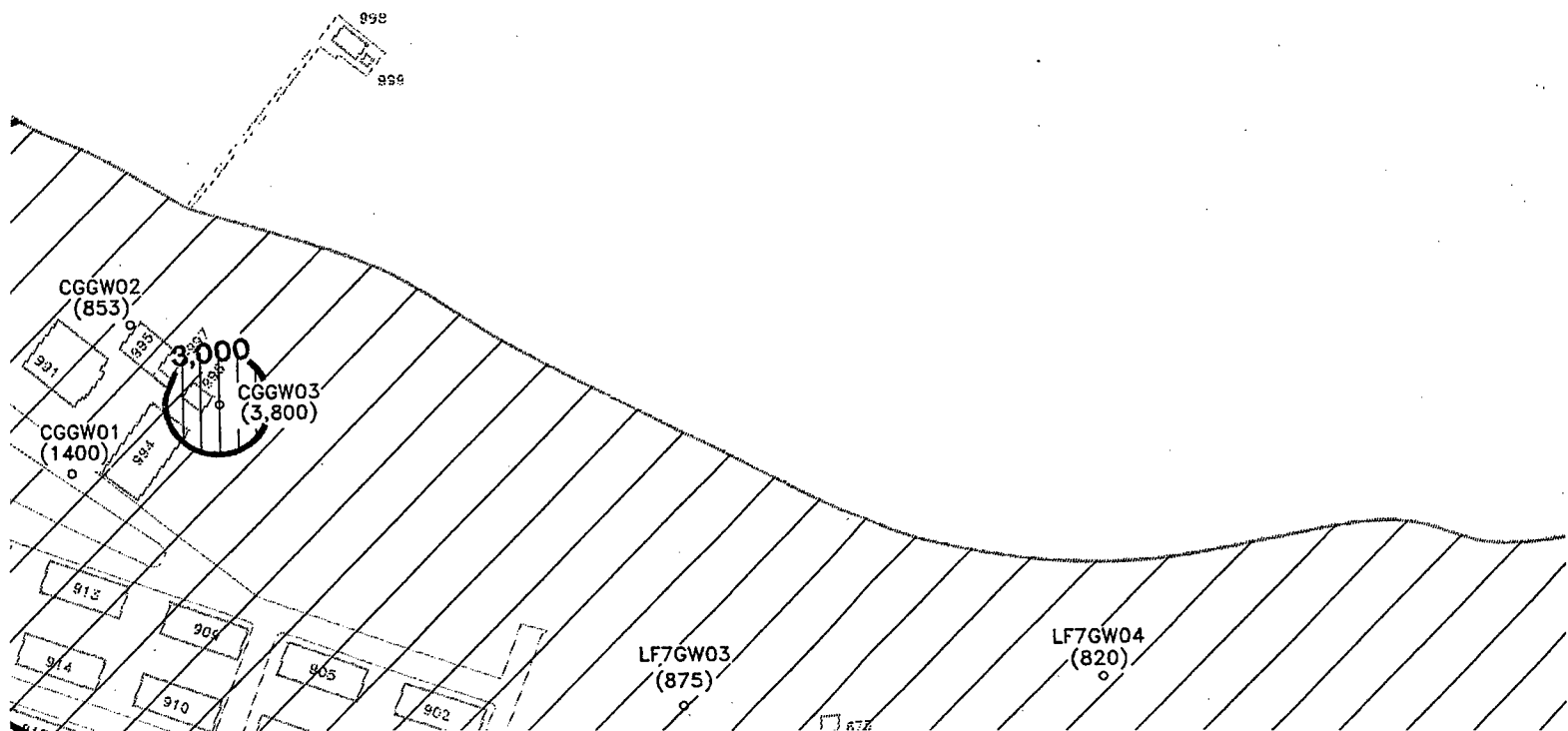








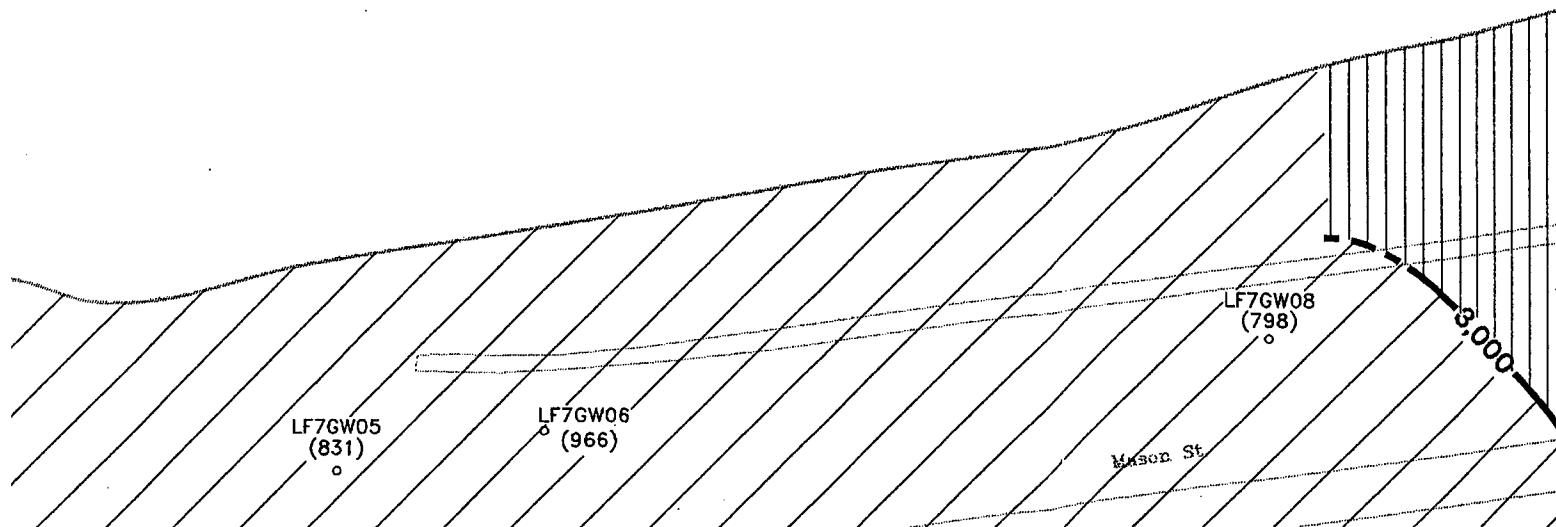


*San Fran*

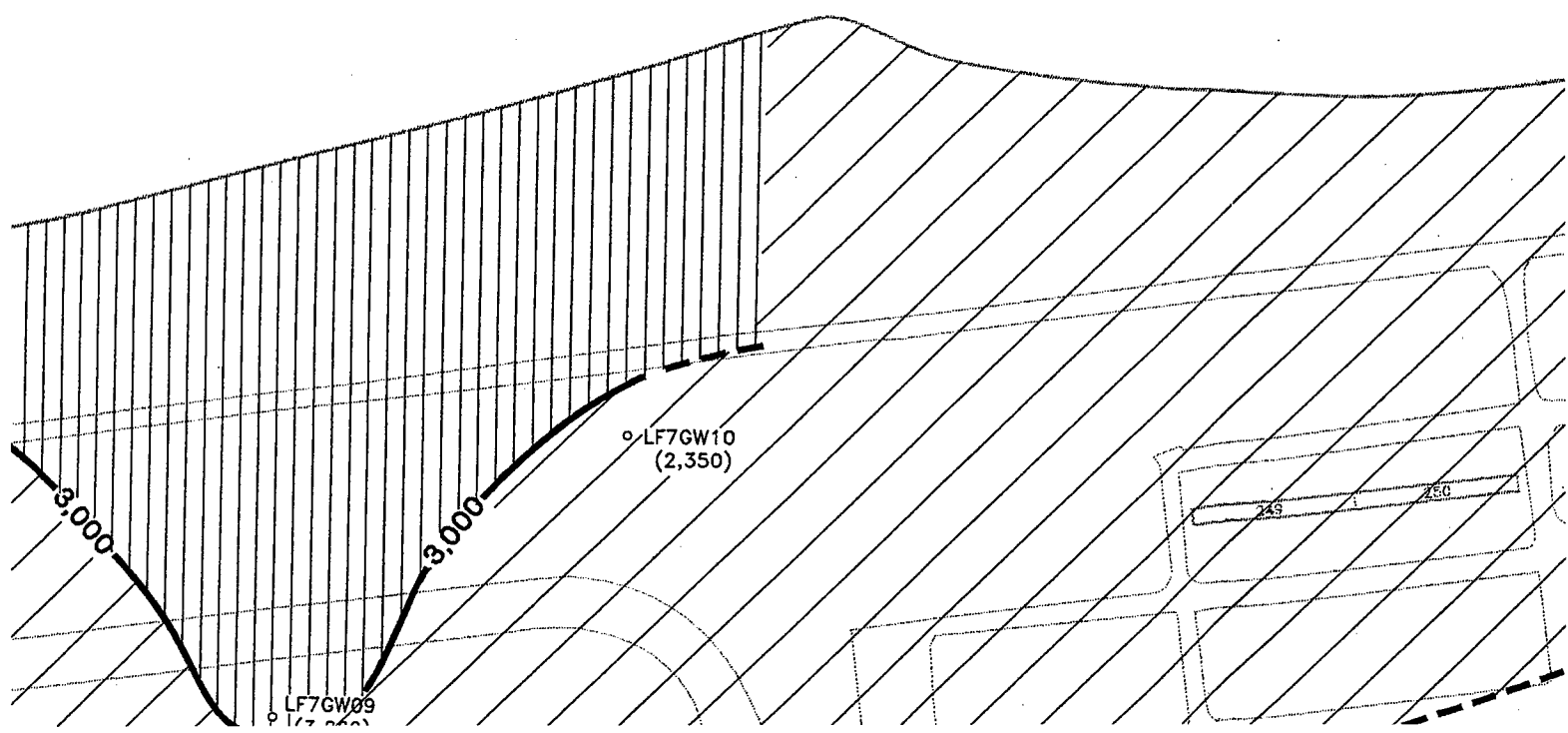


4

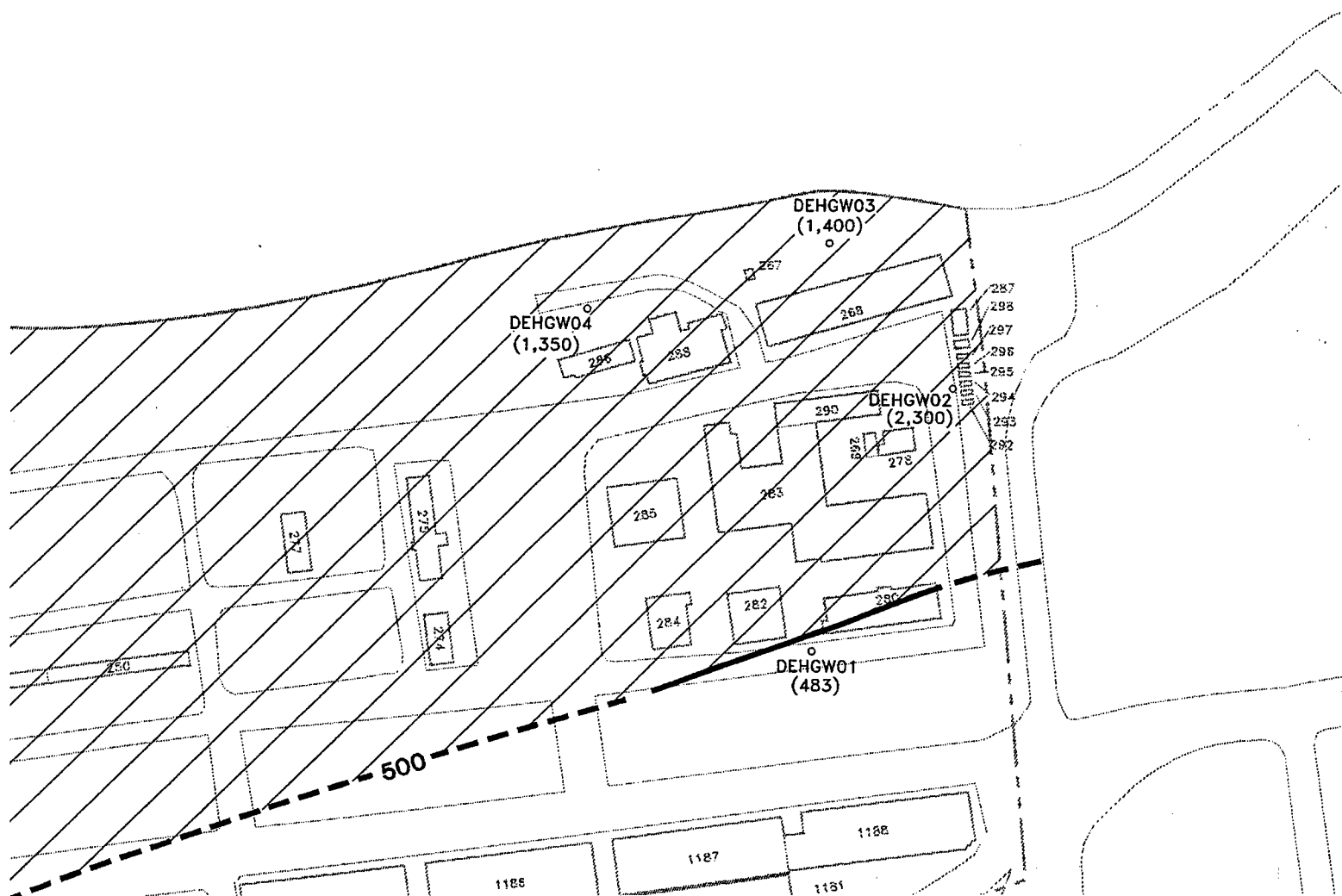
Francisco Bay
















## EXPLANATION

- SHALLOW MONITORING WELL<sup>1</sup>
- ⊕ INTERMEDIATE MONITORING WELL
- ⊗ DEEP MONITORING WELL<sup>2</sup>
- ⊗ DEEP MONITORING WELL<sup>2</sup>  
WITH SOIL SAMPLES
- (1,350) TDS CONCENTRATION, mg/L
- (NDA) NO TDS DATA AVAILABLE
- 500— TDS ISOCONCENTRATION CONTOUR. LINE IS BASED ON  
HIGHEST TDS VALUE REGARDLESS OF DEPTH
- - - - - CRISSY FIELD GROUNDWATER AREA BOUNDARY
-  APPROXIMATE AREAL EXTENT  
OF BEDROCK OUTCROP
-  AREAL EXTENT OF GROUNDWATER EXCEEDING THE TDS  
STANDARD OF 3,000 mg/L FOR MUNICIPAL OR DOMESTIC  
WATER SUPPLIES (STATE WATER RESOURCES CONTROL BOARD  
RESOLUTION NO. 88-63)
-  AREAL EXTENT OF GROUNDWATER EXCEEDING THE RECOMMENDED  
SECONDARY DRINKING WATER STANDARD OF 500 mg/L TDS

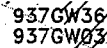
### NOTES:

1. SHALLOW MONITORING WELLS ARE  
SCREENED ACROSS THE WATER TABLE
2. DEEP MONITORING WELLS ARE  
SCREENED AT BOTTOM OF AQUIFER

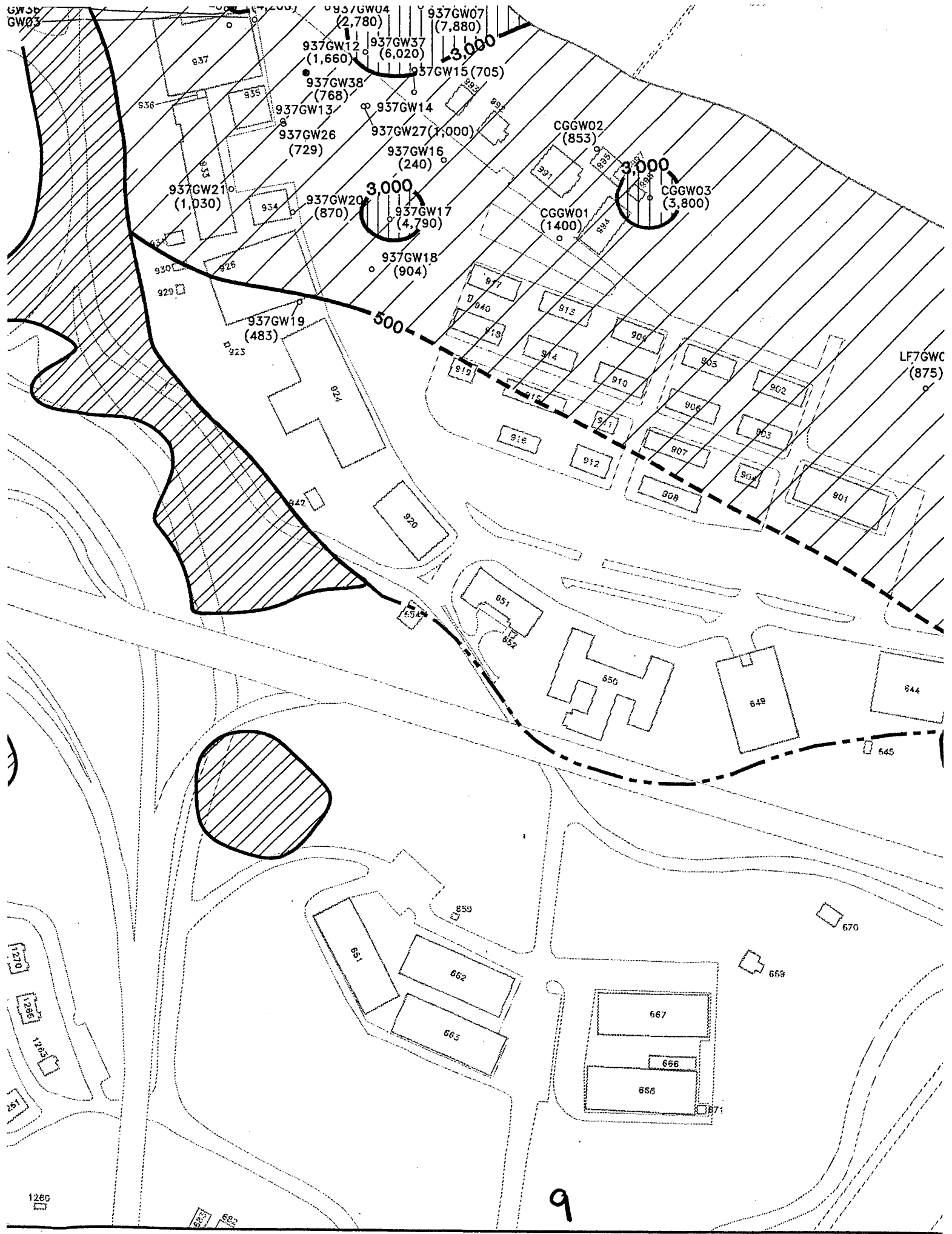
## SOURCES OF TDS DATA

LOCATION/SITE	TDS DATA SOURCE
BUILDING 231	FOLLOW-ON RI
BUILDING 637	MONTGOMERY-WATSON (1995a)
BUILDING 937	IRA QUARTERLY SAMPLING AVERAGES
MONITORING WELLS 979GW01-07	SUPPLEMENTAL RI
MONITORING WELLS 976GW08-10	FOLLOW-ON RI
DEH STUDY ARA	SUPPLEMENTAL RI
FPCGS	SUPPLEMENTAL RI
CRISSY FIELD STUDY AREA	SUPPLEMENTAL RI









GW35  
GW03

937GW04  
(2,780)

937GW07  
(7,880)

937GW12  
(1,660)

937GW37  
(6,020)

937GW15  
(705)

937GW38  
(768)

937GW13  
(729)

937GW14  
(1,000)

CGGW02  
(853)

937GW21  
(1,030)

937GW20  
(870)

937GW17  
(4,790)

CGGW01  
(1400)

CGGW03  
(3,800)

937GW18  
(904)

937GW19  
(483)

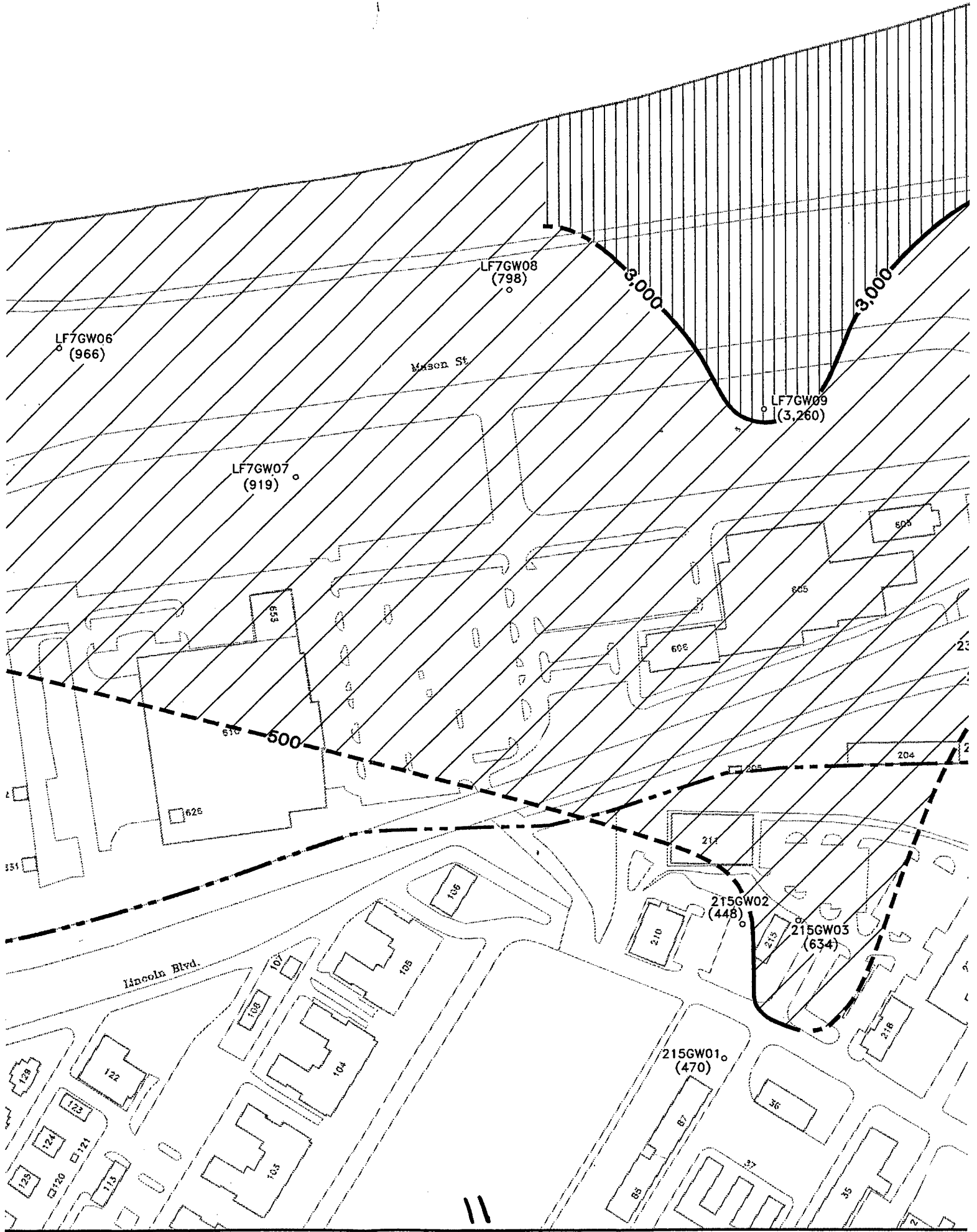
LF7GWC  
(875)

9

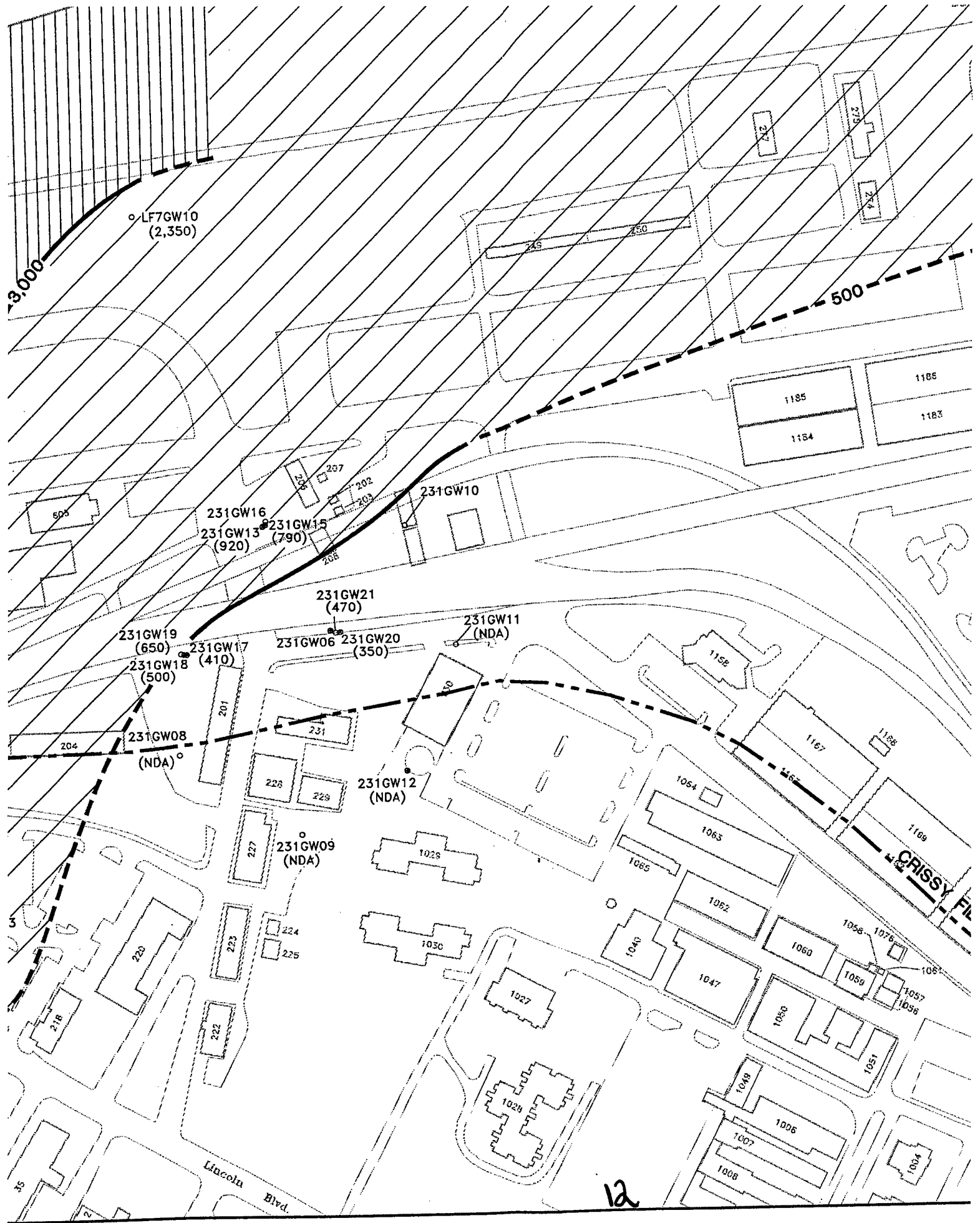






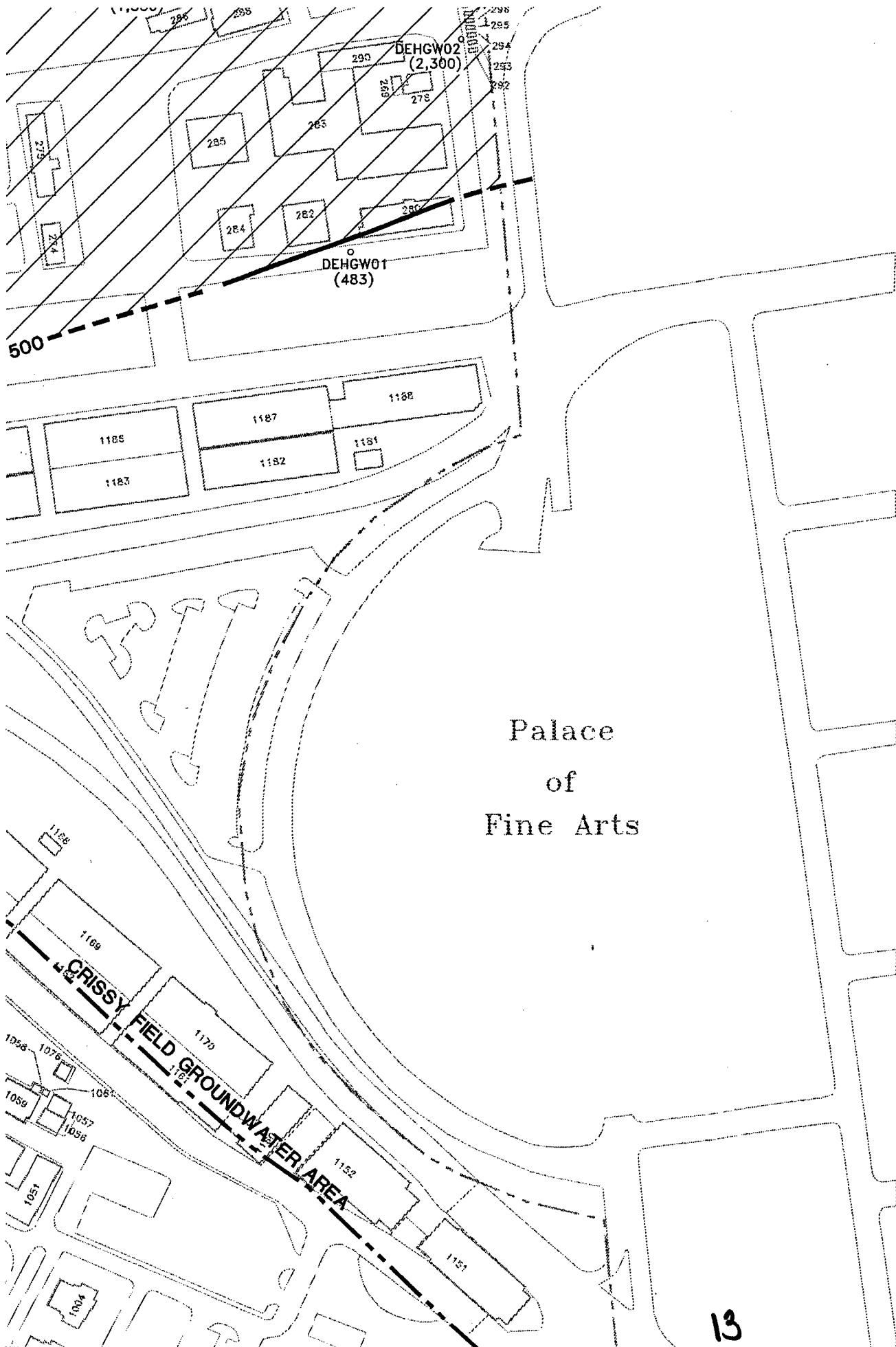






12





BUIL
BUIL
BUIL
MON
MON
DEH
FPC
CRIS
BUIL

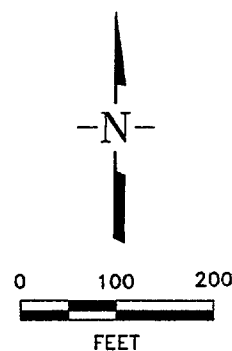


1. SHALLOW MONITORING WELLS ARE  
SCREENED ACROSS THE WATER TABLE

2. DEEP MONITORING WELLS ARE  
SCREENED AT BOTTOM OF AQUIFER

#### SOURCES OF TDS DATA

LOCATION/SITE	TDS DATA SOURCE
BUILDING 231	FOLLOW-ON RI
BUILDING 637	MONTGOMERY-WATSON (1995a)
BUILDING 937	IRA QUARTERLY SAMPLING AVERAGES
MONITORING WELLS 979GW01-07	SUPPLEMENTAL RI
MONITORING WELLS 976GW08-10	FOLLOW-ON RI
DEH STUDY ARA	SUPPLEMENTAL RI
FPCGS	SUPPLEMENTAL RI
CRISSY FIELD STUDY AREA	SUPPLEMENTAL RI
BUILDING 215	FOLLOW-ON RI



**DAMES & MOORE**

**CRISSY FIELD GROUNDWATER AREA  
TDS ISOCONCENTRATION MAP,  
PRESIDIO OF SAN FRANCISCO**

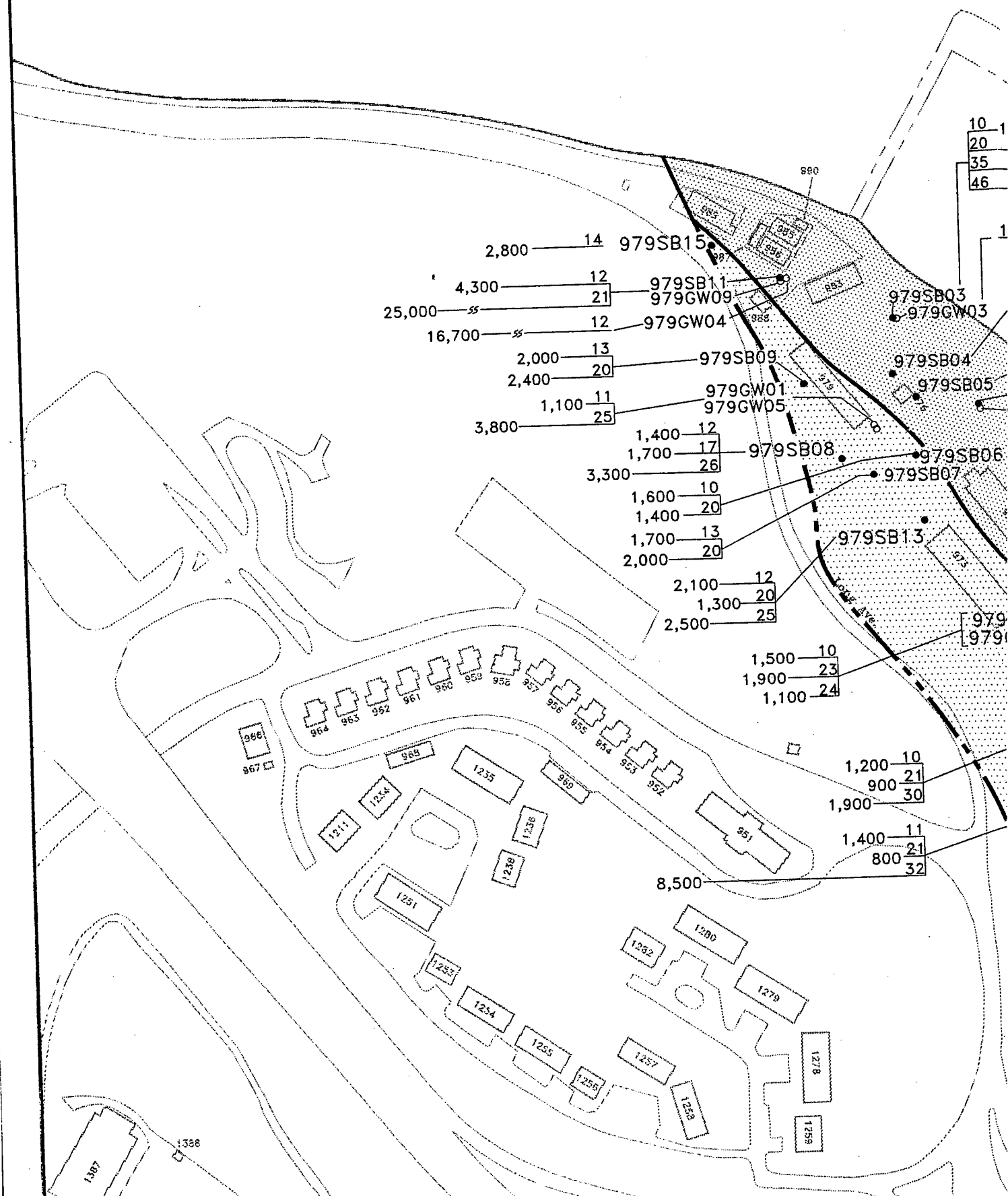
PSF25157\DV1

Date: January 1997

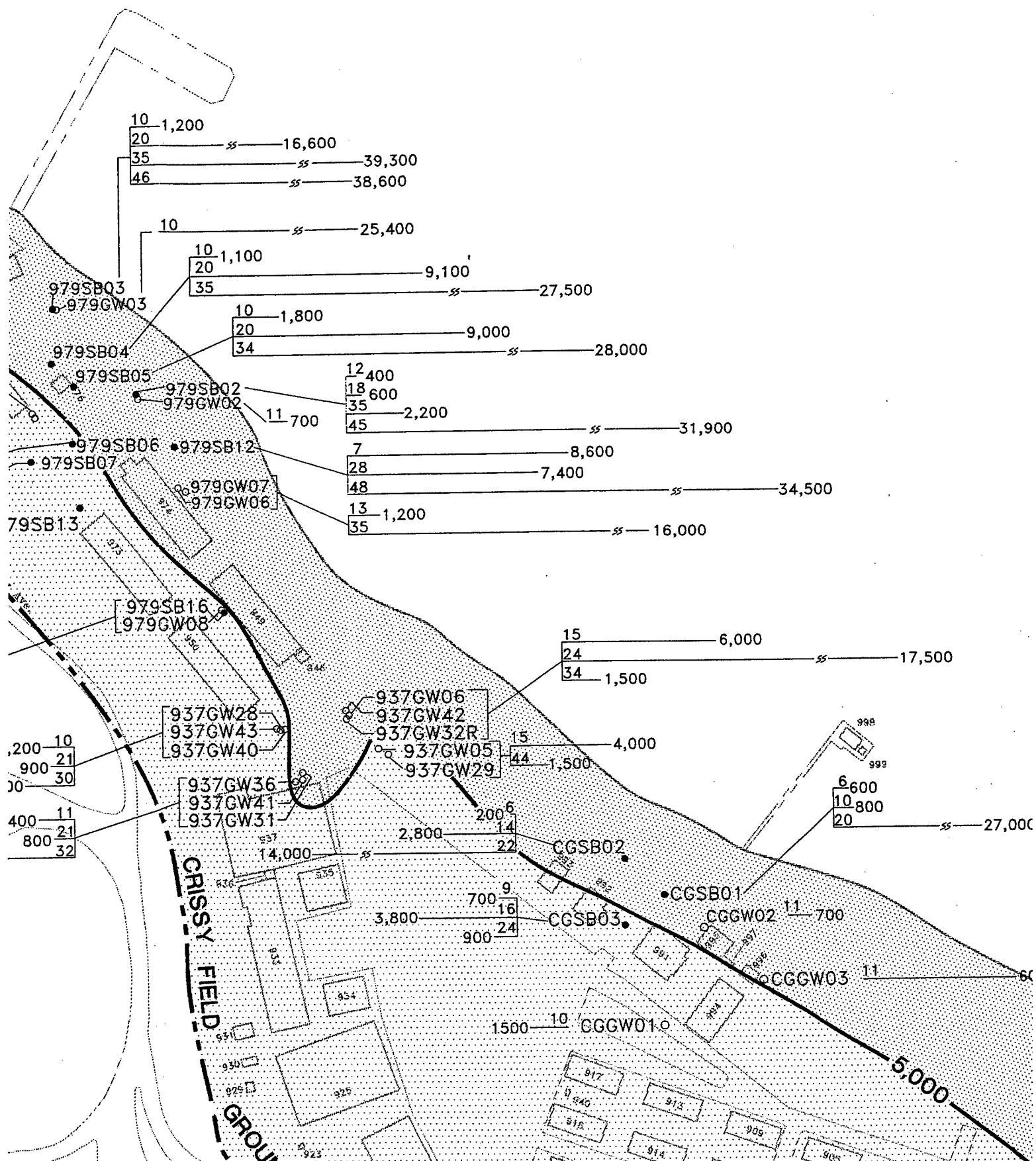
Figure 2.3-11

14







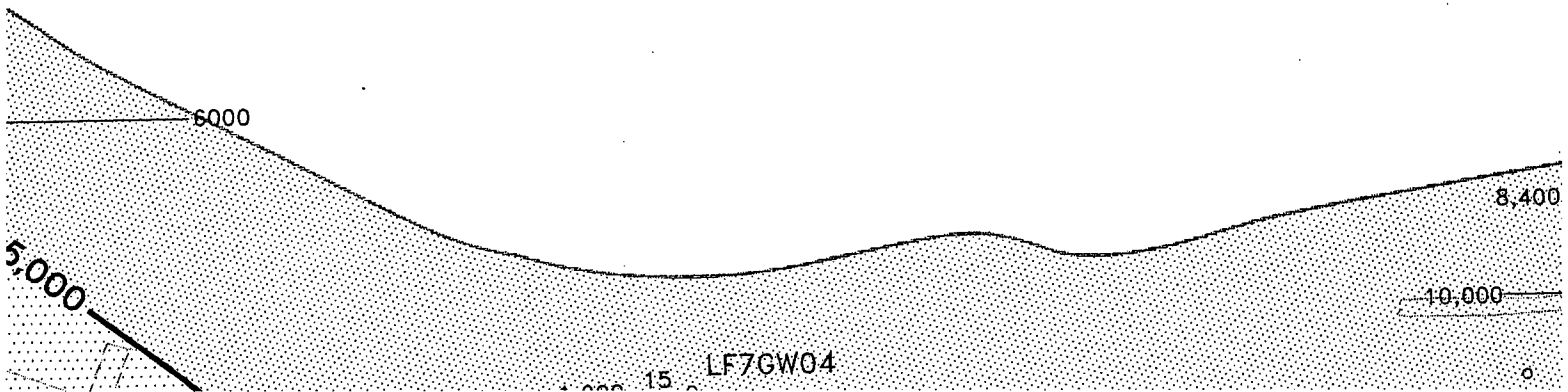




*San Francisco Bay*

17,500

—ss— 27,000

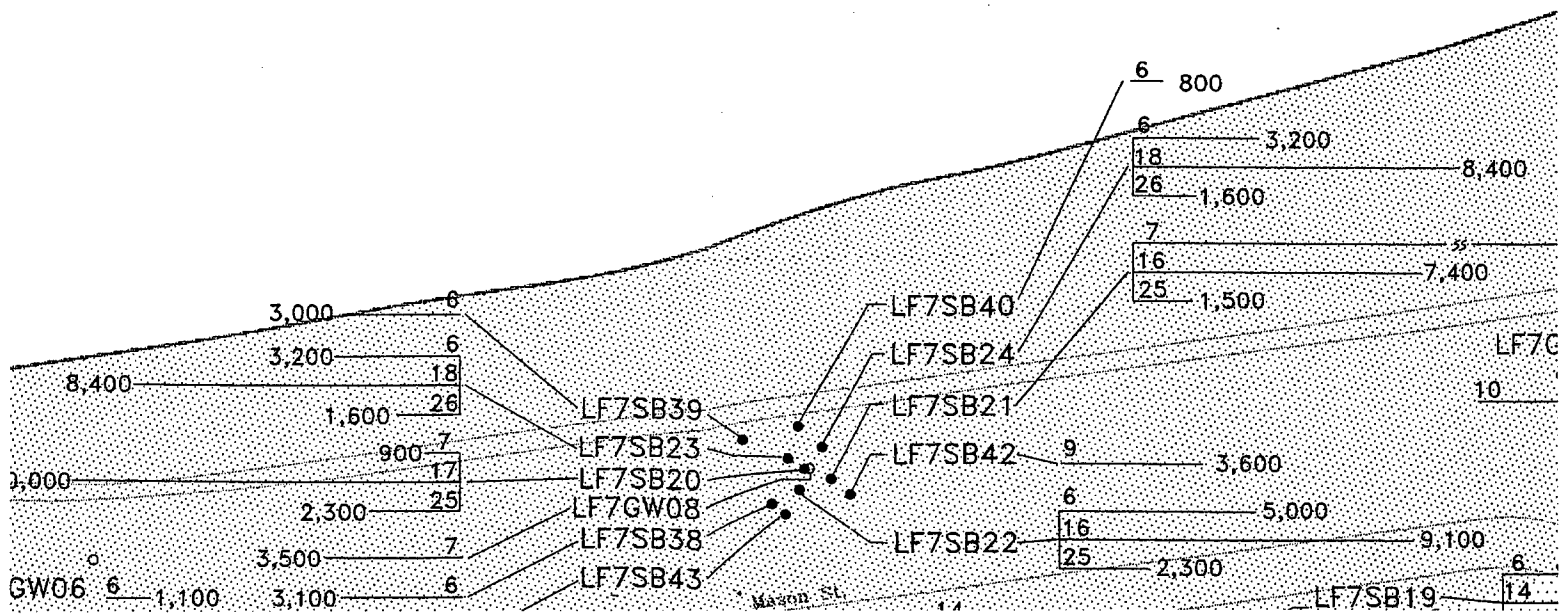




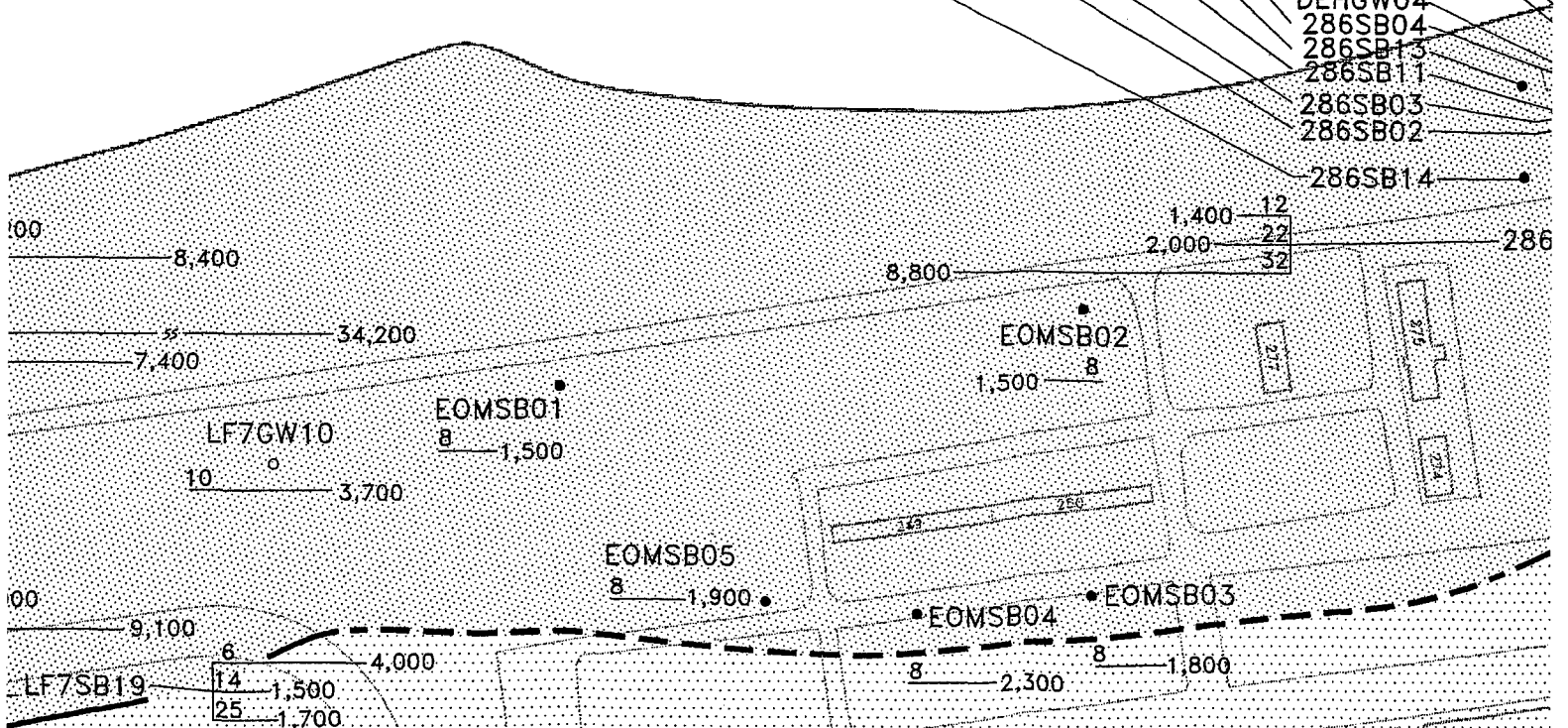
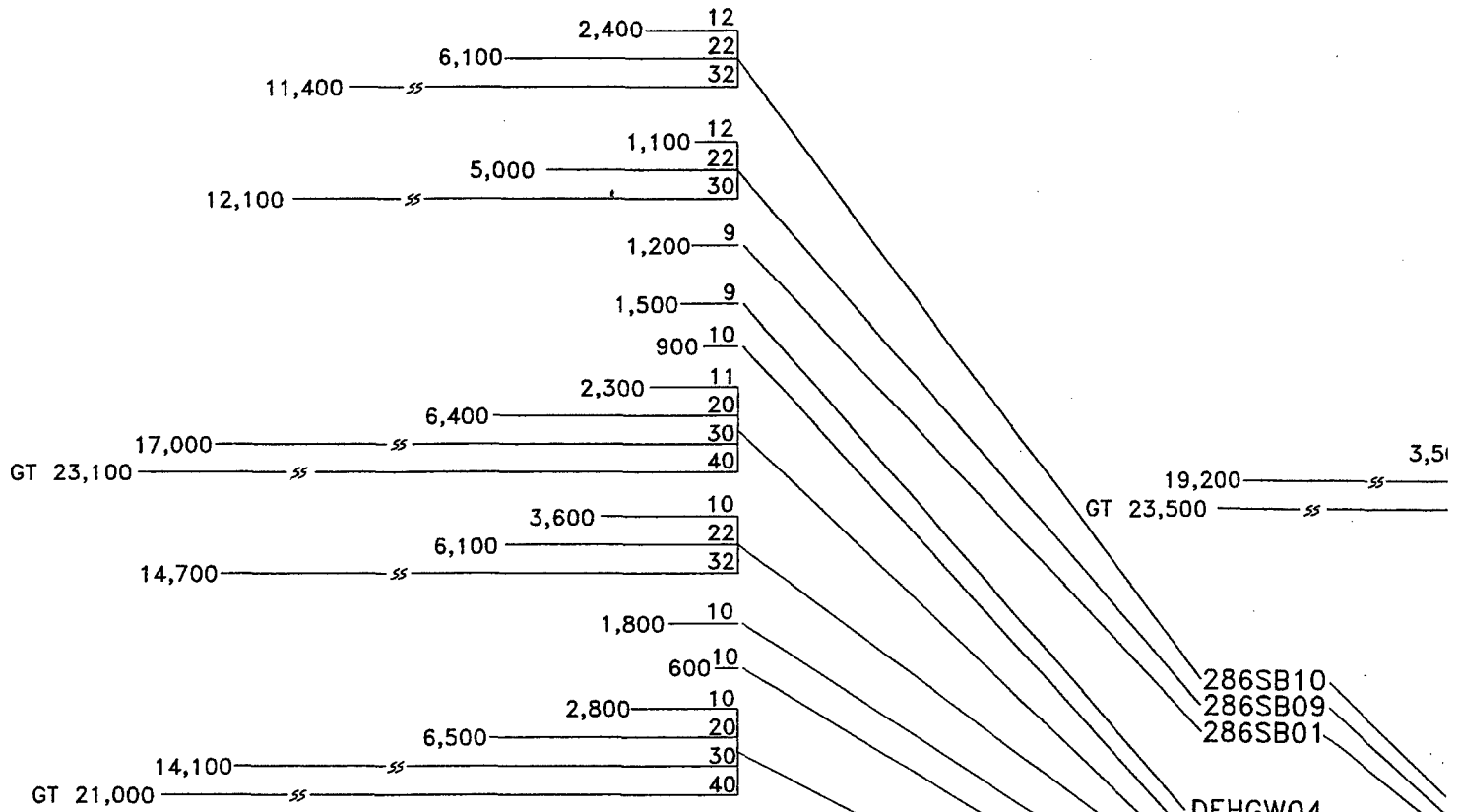
17,1  
GT 23,100 —

14,

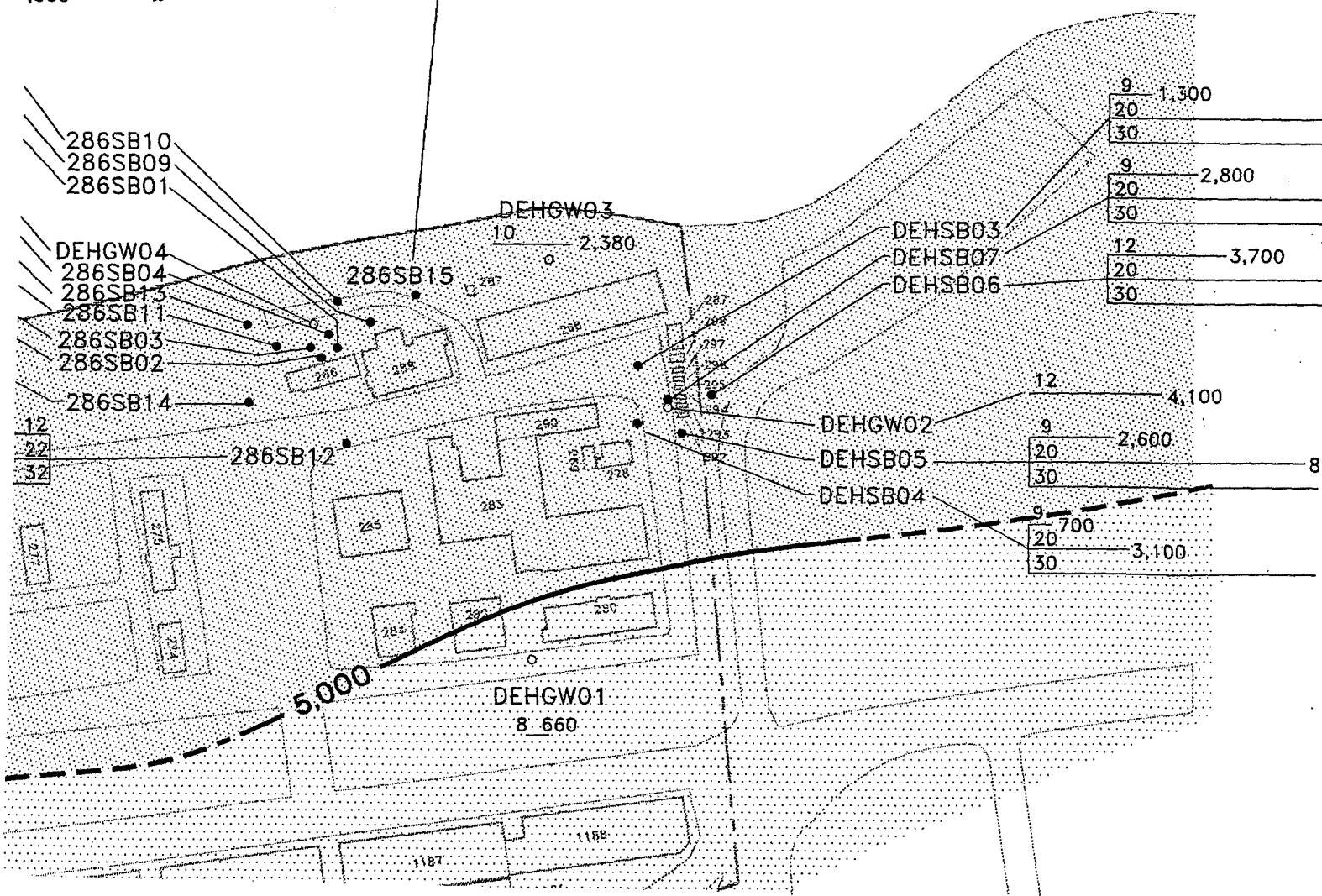
1.  
GT 21,000 -













# EXPLANATION

9 ————— 2,800      depth (ft) — EC, uS/cm

o

GROUNDWATER MONITORING WELLS

•

DISCRETE GROUNDWATER SAMPLING LOCATION

637-10a

APPROXIMATE LOCATION OF MONTGOMERY WATSON WELLS (MONTGOMERY WATSON, 1995d)

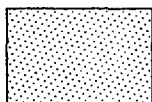
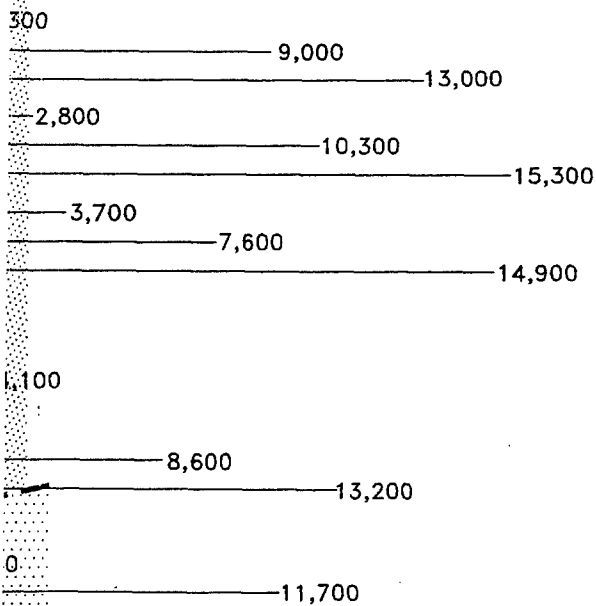
o

—5,000—

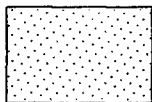
ELECTRICAL CONDUCTIVITY STANDARD FOR MUNICIPAL OR DOMESTIC WATER SUPPLIES IN CALIFORNIA (STATE WATER RESOURCES CONTROL BOARD RESOLUTION NO. 88-63) (DASHED WHERE INFERRED). LINE IS BASED ON HIGHEEST ELECTRICAL CONDUCTIVIY VALUE; REGARDLESS OF DEPTH.

-----

CRISSY FIELD GROUNDWATER AREA BOUNDARY

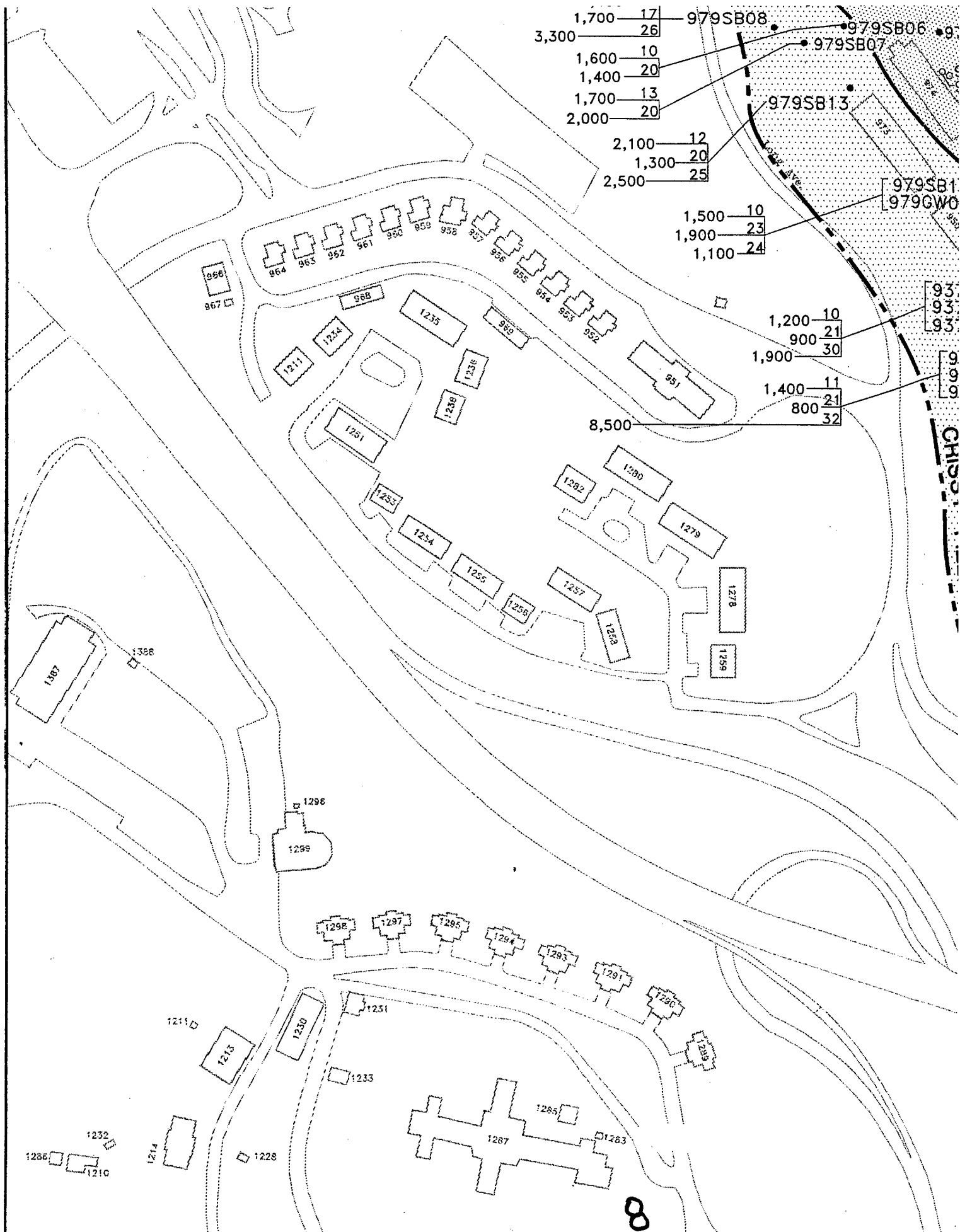


AREAL EXTENT OF GROUNDWATER EXCEEDING THE ELECTRICAL CONDUCTIVITY STANDARD OF 5,000 uS/cm FOR MUNICIPAL OR DOMESTIC WATER SUPPLIES (STATE WATER RESOURCES CONTROL BOARD RESOLUTION NO. 88-63)

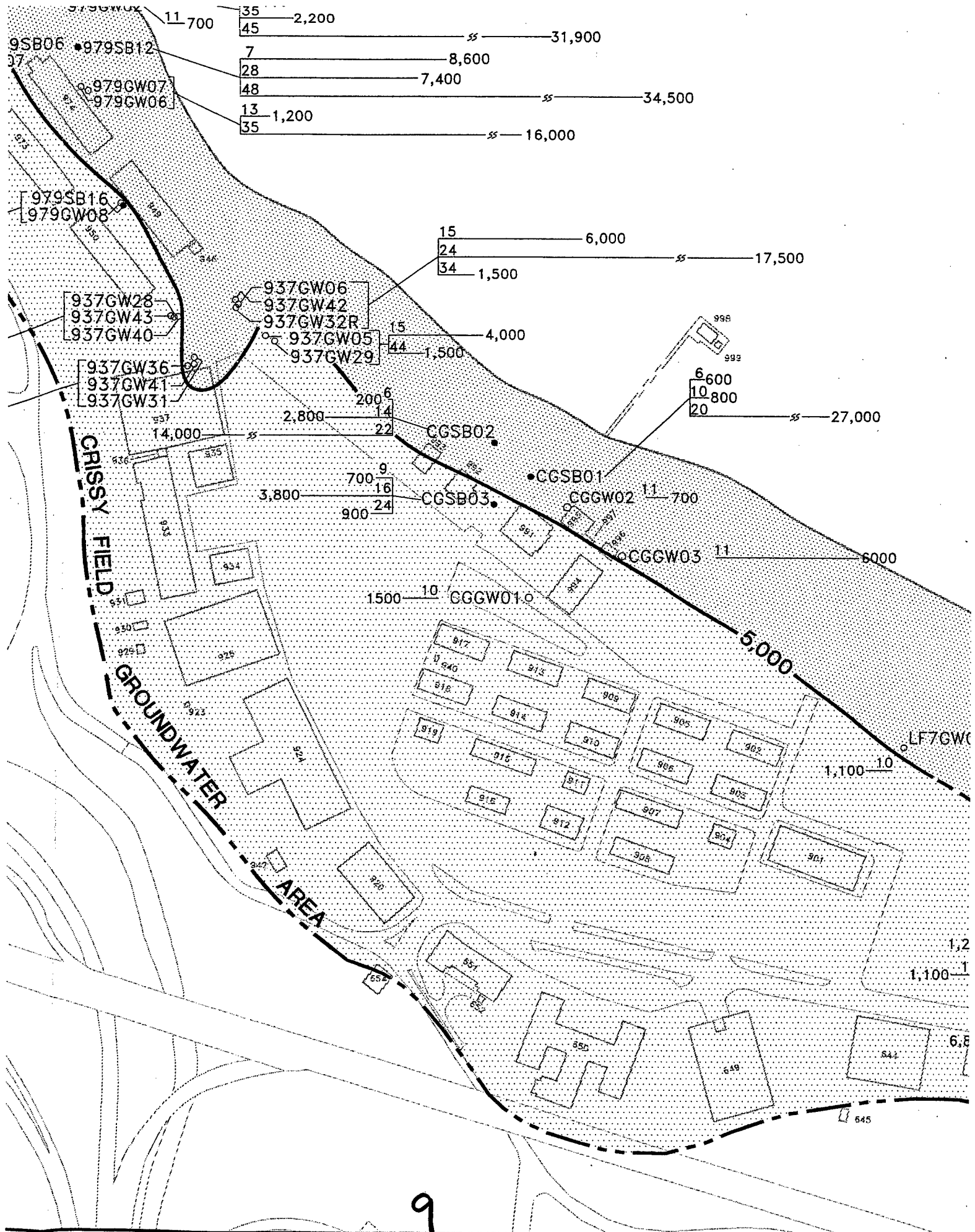


AREAL EXTENT OF GROUNDWATER EXCEEDING THE RECOMMENDED SECONDARY MCL FOR ELECTRICAL CONDUCTIVITY (900 uS/cm).



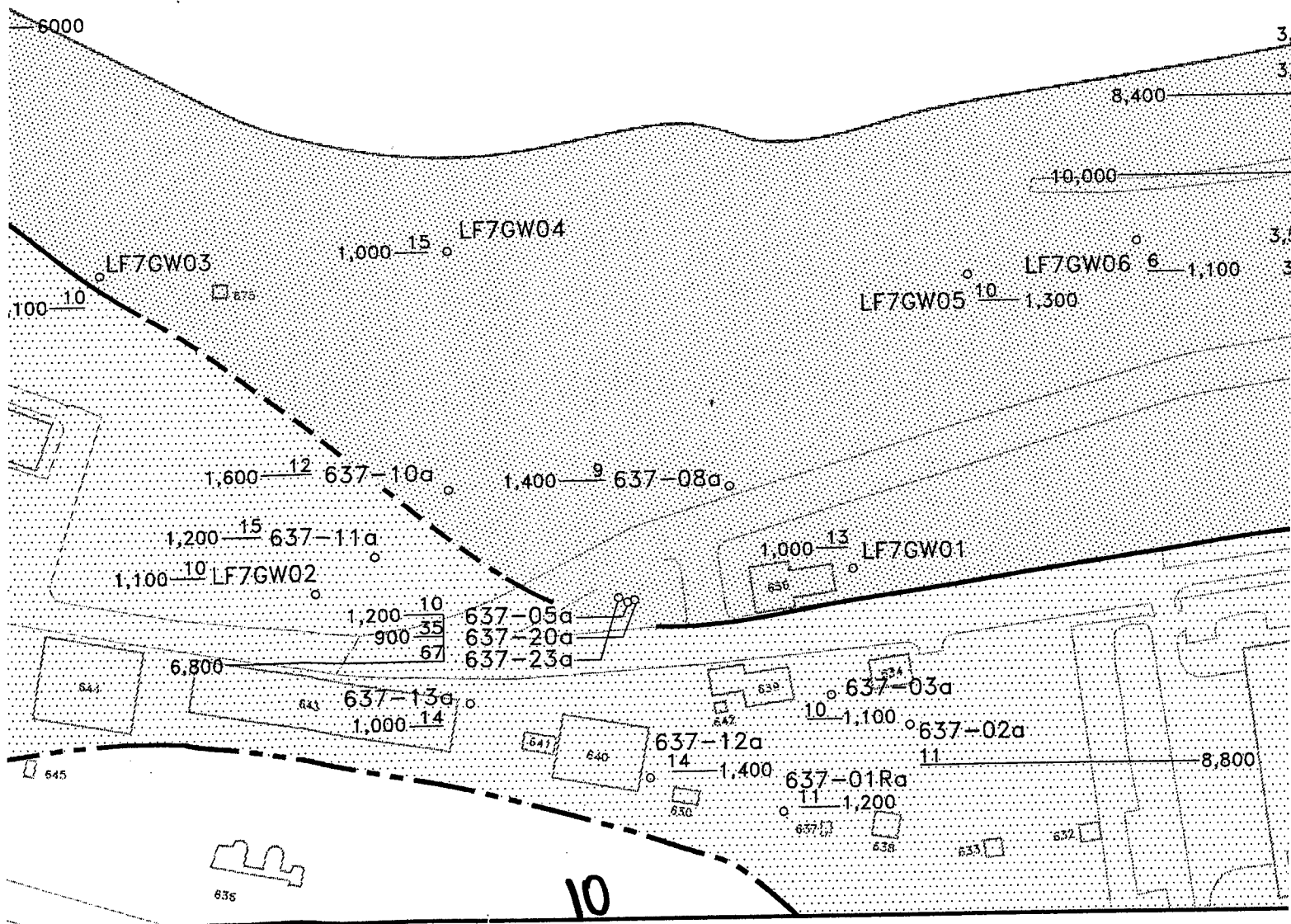








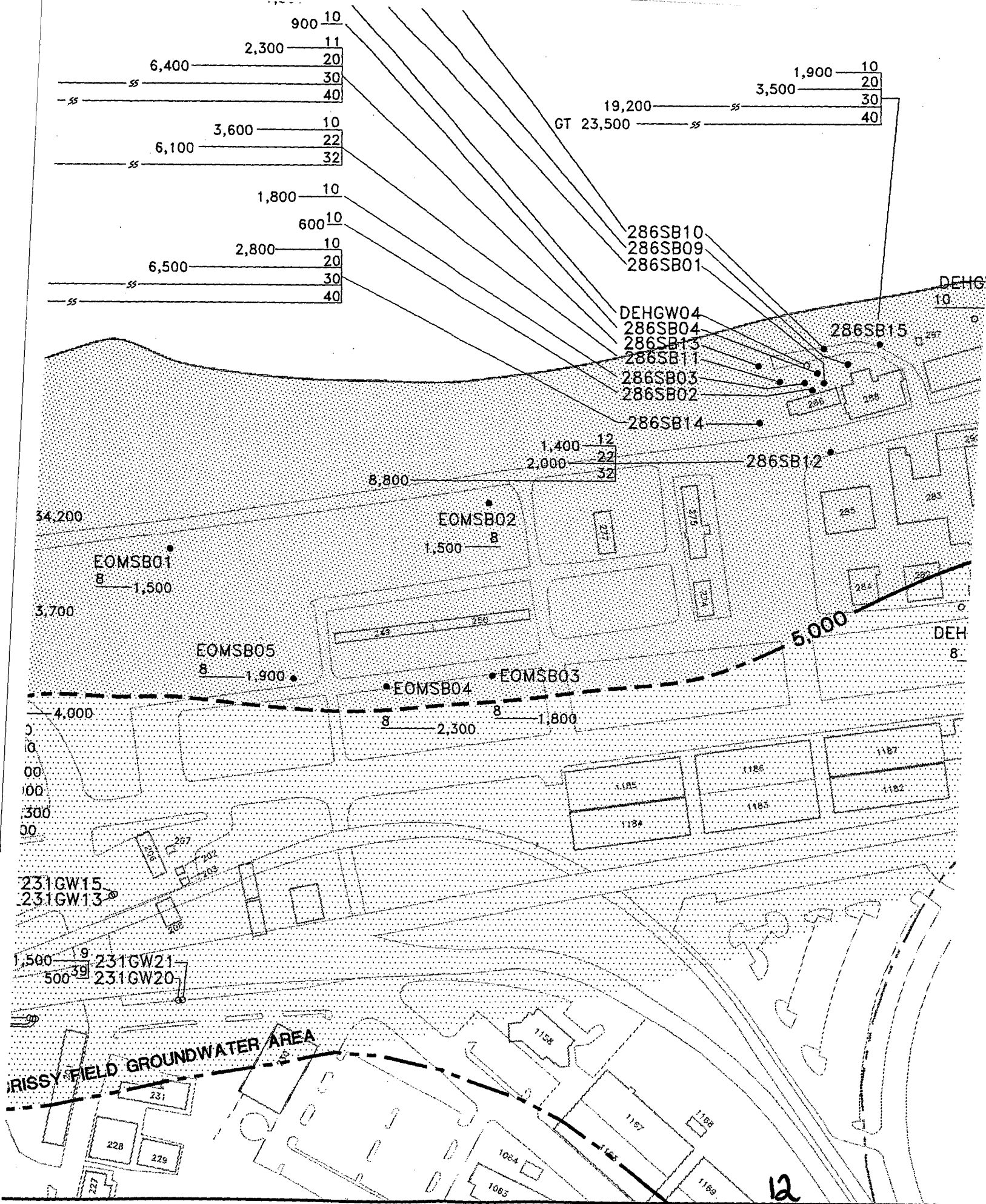
7,000



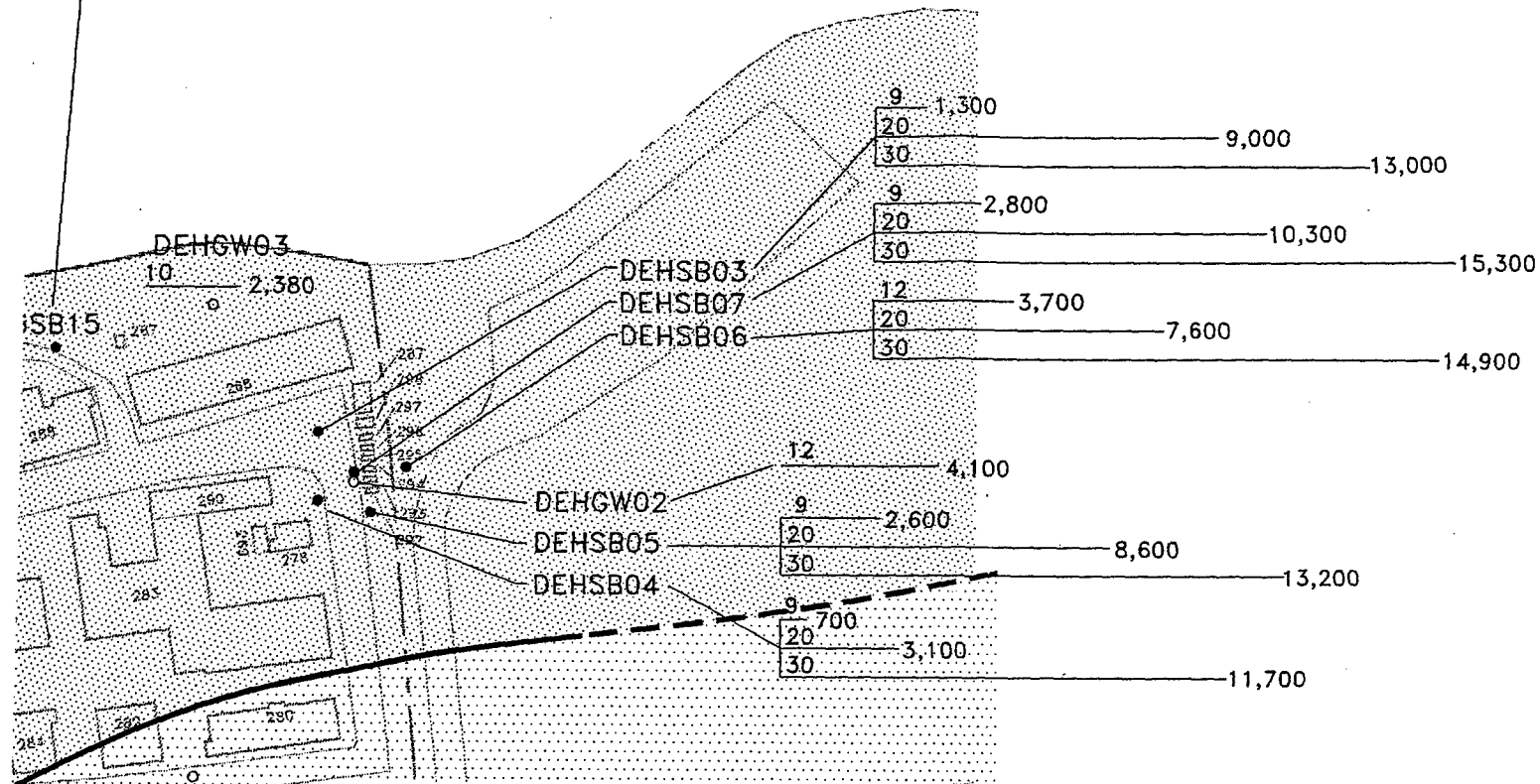


GT 21,000 14,100 ss









Palace  
of  
Fine Arts

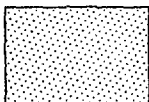


LINE IS BASED ON HIGHEEST ELECTRICAL CONDUCTIVITY  
VALUE; REGARDLESS OF DEPTH.



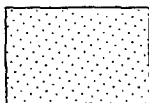
CRISSY FIELD GROUNDWATER AREA BOUNDARY

9,000 13,000



AREAL EXTENT OF GROUNDWATER EXCEEDING THE  
ELECTRICAL CONDUCTIVITY STANDARD OF 5,000  $\mu\text{S}/\text{cm}$   
FOR MUNICIPAL OR DOMESTIC WATER SUPPLIES  
(STATE WATER RESOURCES CONTROL BOARD  
RESOLUTION NO. 88-63)

10,300 15,300

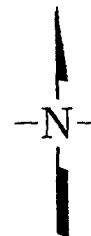


AREAL EXTENT OF GROUNDWATER EXCEEDING THE  
RECOMMENDED SECONDARY MCL FOR ELECTRICAL  
CONDUCTIVITY (900  $\mu\text{S}/\text{cm}$ ).

30 7,600 14,900

8,600 13,200

11,700



0 100 200  
FEET



DAMES & MOORE

CRISSY FIELD GROUNDWATER AREA  
ELECTRICAL CONDUCTIVITY MAP,  
PRESIDIO OF SAN FRANCISCO

PSF25160\DV1

Date: January 1997

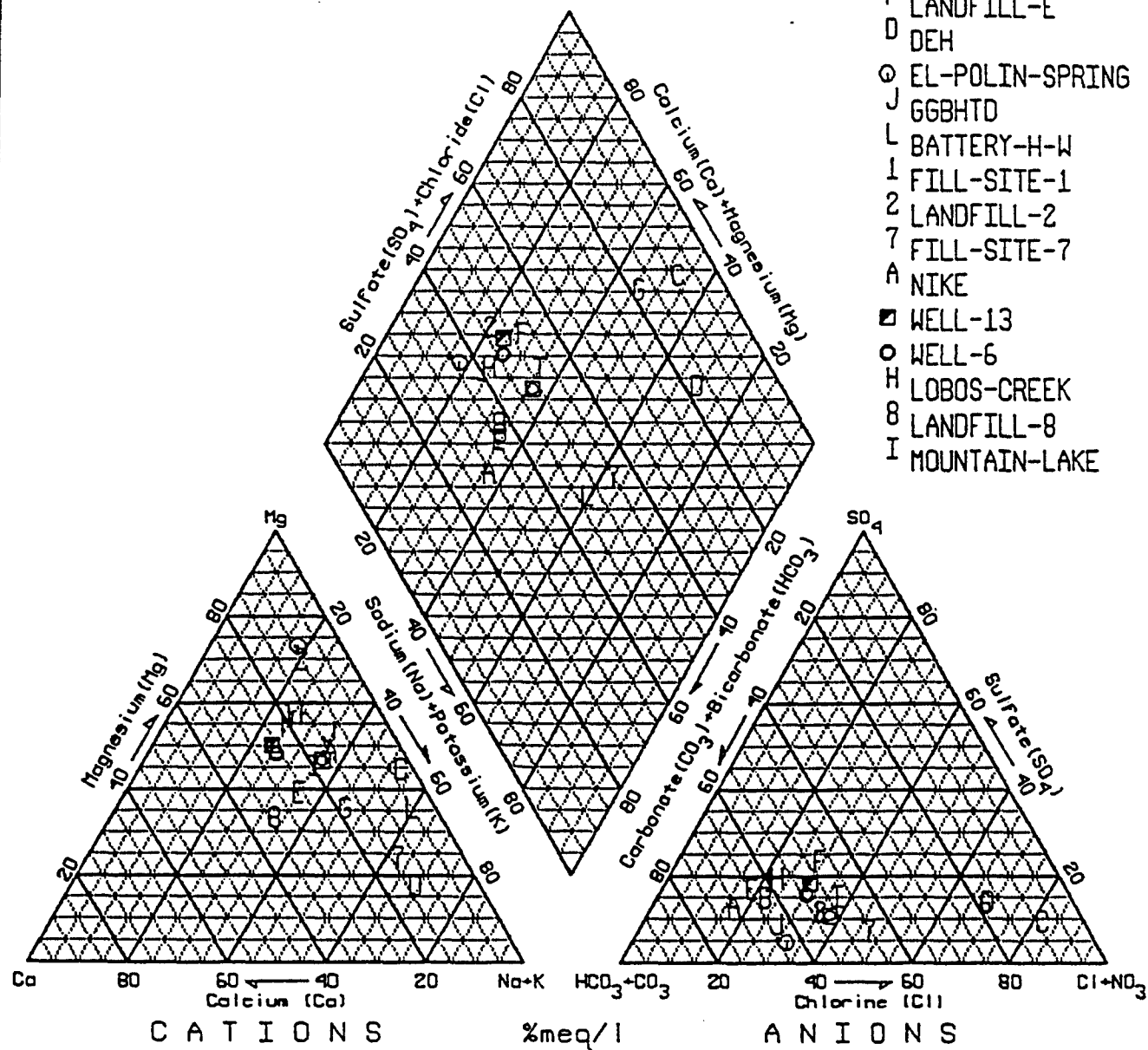
Figure 2.3-12

14



## EXPLANATION

- C 900S
- E 231
- BAKER-BEACH
- G FPCGS
- F LANDFILL-E
- D DEH
- EL-POLIN-SPRING
- J GGBHTD
- L BATTERY-H-W
- 1 FILL-SITE-1
- 2 LANDFILL-2
- 7 FILL-SITE-7
- A NIKE
- WELL-13
- WELL-6
- H LOBOS-CREEK
- 8 LANDFILL-8
- I MOUNTAIN-LAKE



**DAMES & MOORE**

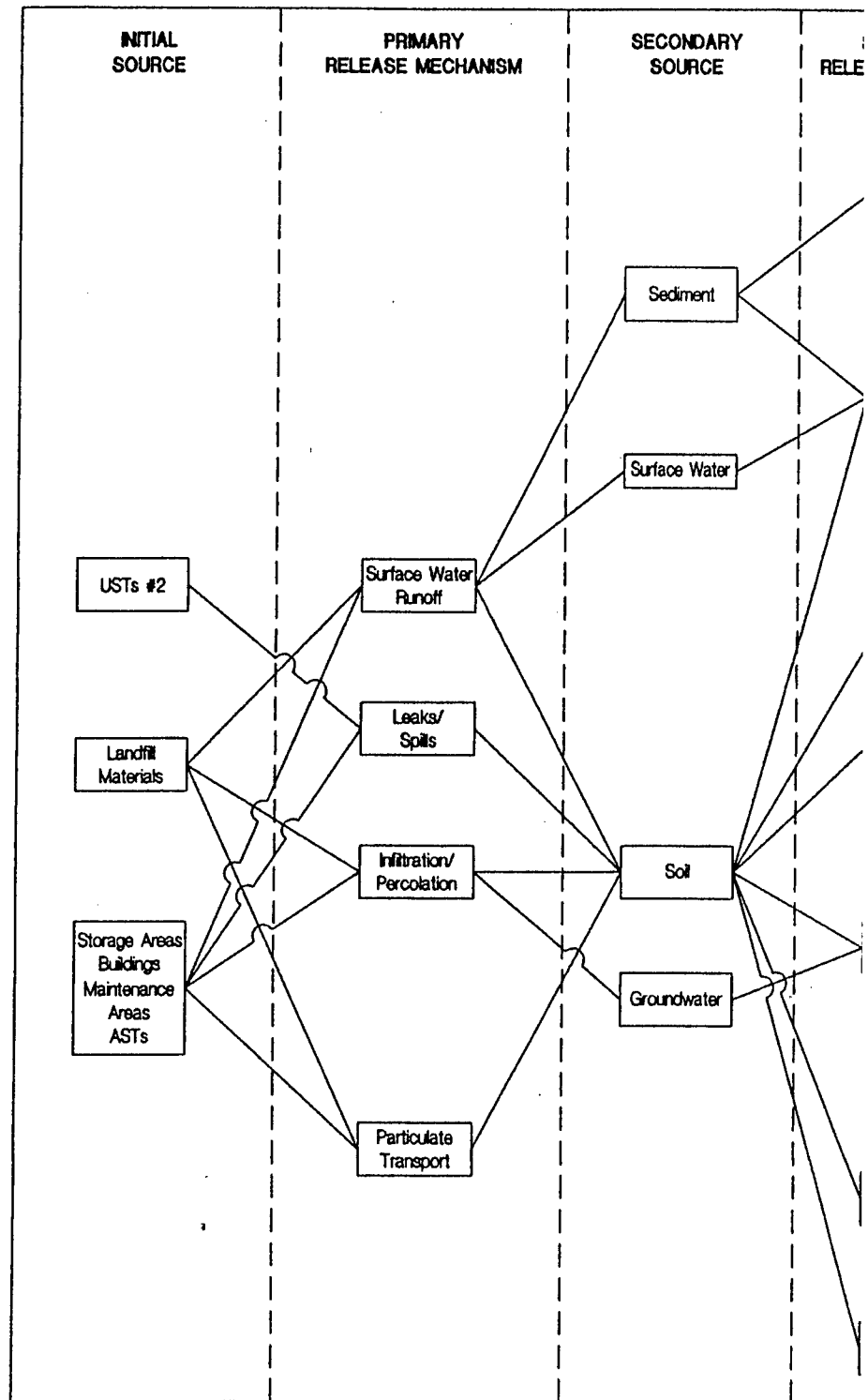
**GENERAL MINERAL CHARACTERISTICS  
OF SURFACE WATER AND GROUNDWATER  
PRESIDIO OF SAN FRANCISCO**

PSF25162\ DV1

Date: January 1997

Figure 2.3-13

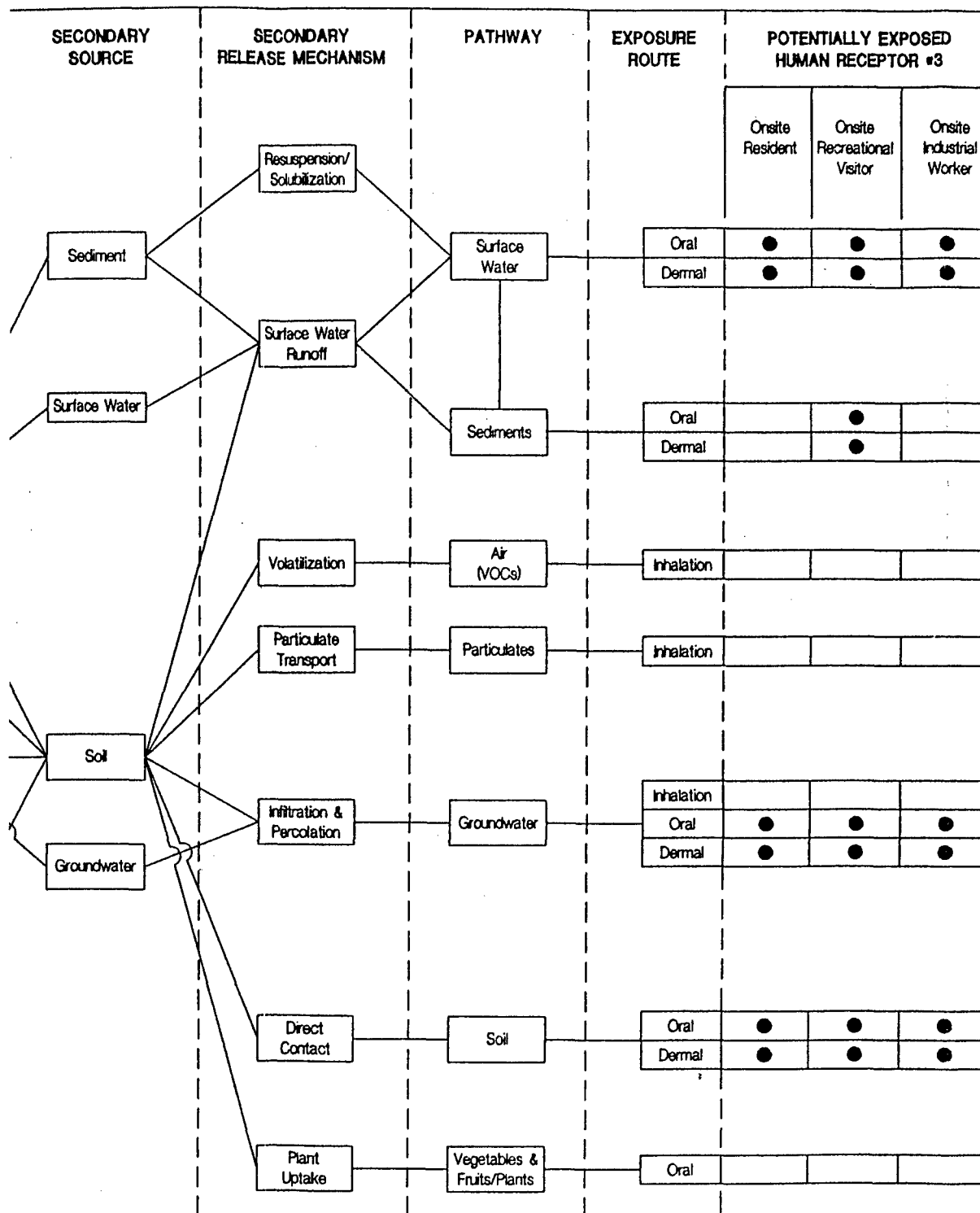




### EXPLANATION

- Potentially Complete Pathway for Human Exposure





n Exposure

NOTES:

- #1. Potentially complete dermal pathways will be quantitatively assessed only if investigation demonstrates presence of organic contaminants of concern.
- #2. USTs evaluated under the Corps of Engineers Program
- #3. See Figure 3.1-2 for Ecological Receptors

2



CONCEPTUAL  
FOR HUMAN RE  
PRESIDIO OF

PSF25149\DV2

Date: January 1997



POTENTIALLY EXPOSED  
HUMAN RECEPTOR #3

Insider Resident	Onsite Recreational Visitor	Onsite Industrial Worker
•	•	•
•	•	•
	•	
	•	
•	•	•
•	•	•
	•	•
	•	•



DAMES & MOORE

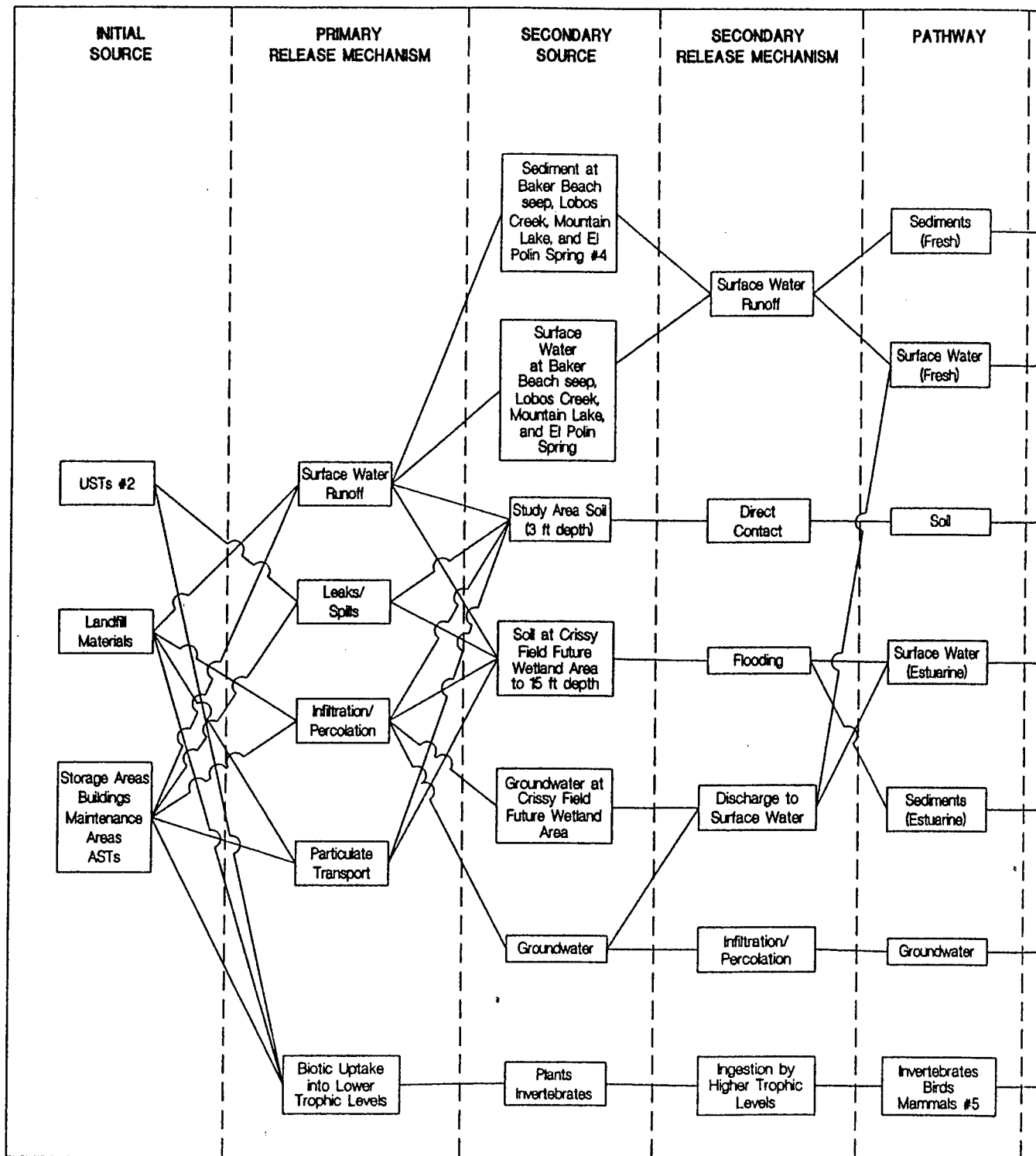
CONCEPTUAL SITE MODEL  
FOR HUMAN RECEPTORS AT THE  
PRESIDIO OF SAN FRANCISCO

PSF25149\DV2

Date: January 1997

Figure 3.1-1





### EXPLANATION

- Quantitated
- Not quantitated
- NA Not Applicable

### NOTES:

- #1. The t. is not rather conce
- #2. USTs
- #3. See F
- #4. No Se
- #5. See S of fo



SECONDARY RELEASE MECHANISM	PATHWAY	EXPOSURE ROUTE	POTENTIALLY EXPOSED ECOLOGICAL RECEPTOR #3					
			Plant	Invertebrate	Bird	Mammal	Aquatic Life-Plant, Invert, Fish	Amphibian
Surface Water Runoff	Sediments (Fresh)	Oral	NA	NA	●	●	○	○
		Dermal	NA	NA	●	●	○	○
		Direct Contact #1	NA	NA	NA	NA	●	●
	Surface Water (Fresh)	Oral	NA	NA	●	●	○	NA
		Dermal	NA	NA	●	●	○	○
		Direct Contact #1	NA	NA	NA	NA	●	●
Direct Contact	Soil	Oral	NA	○	●	●	NA	○
		Dermal	○	○	●	●	NA	○
		Direct Contact #1	●	●	NA	NA	NA	○
Flooding	Surface Water (Estuarine)	Oral	NA	NA	●	NA	○	NA
		Dermal	NA	NA	○	○	○	NA
		Direct Contact #1	NA	NA	NA	NA	●	NA
Discharge to Surface Water	Sediments (Estuarine)	Oral	NA	NA	●	●	○	NA
		Dermal	NA	NA	○	○	○	NA
		Direct Contact #1	NA	NA	NA	NA	●	NA
Infiltration/Percolation	Groundwater	Oral	NA	NO EXPOSURE POINT UNTIL DISCHARGE TO SURFACE WATER				
		Dermal	NA					
		Direct Contact #1	○					
Ingestion by Higher Trophic Levels	Invertebrates Birds Mammals #5	Oral	NA	○	●	●	NA	○
		Dermal	NA	NA	NA	NA	NA	NA
		Direct Contact #1	NA	NA	NA	NA	NA	NA

NOTES:

- #1. The term direct contact implies that exposure is not assessed by comparing intakes to TBVs; rather, exposure is assessed by comparing media concentrations directly to a criterion based on same medium.
- #2. USTs evaluated under the Corps of Engineers Program
- #3. See Figure 3.1-1 for Human Receptors
- #4. No Sediment data available for El Polin Spring
- #5. See Section 15.2.2 for more detailed description of food web modeling



CON  
FOR ECOL  
PRESII

PSF25194\DV4

Date: Januar




LY EXPOSED RECEPTOR #3		
Mammal	Aquatic Life- Plant, Invert. Fish	Amphibian
●	○	○
●	○	○
NA	●	●
●	○	NA
●	○	○
NA	●	●
●	NA	○
●	NA	○
NA	NA	○
NA	○	NA
○	○	NA
NA	●	NA
●	○	NA
○	○	NA
NA	●	NA
OINT UNTIL DISCHARGE TO FACE WATER		
●	NA	○
NA	NA	NA
NA	NA	NA

s;  
 media  
 n same medium.  
 Program

g  
 tion

3


**DAMES & MOORE**

**CONCEPTUAL SITE MODEL  
FOR ECOLOGICAL RECEPTORS AT THE  
PRESIDIO OF SAN FRANCISCO**

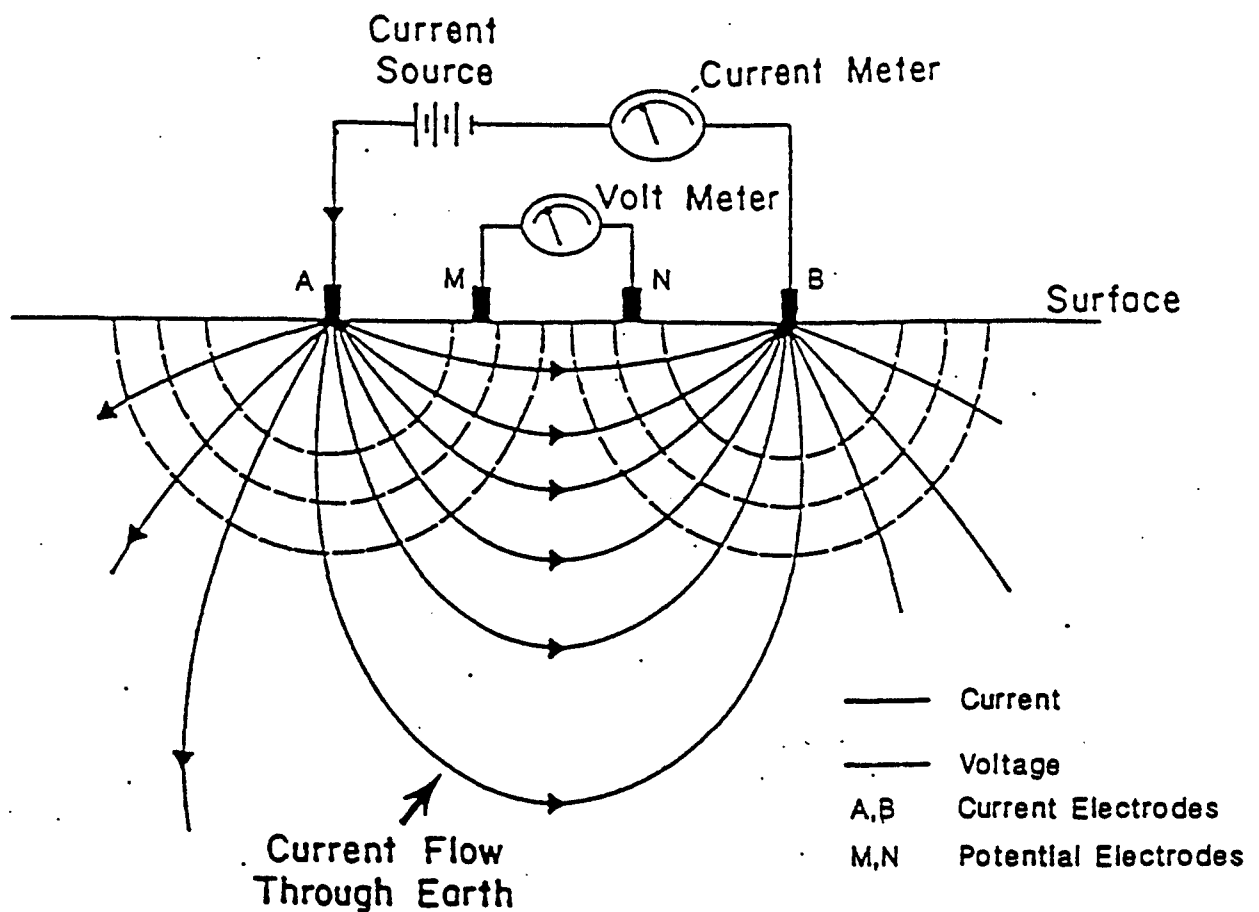
PSF25194\DV4

Date: January 1997

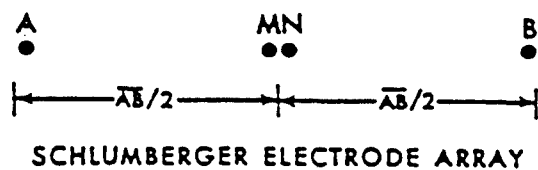
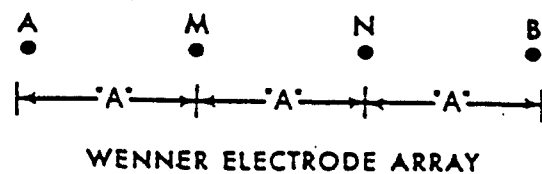
Figure 3.1-2



## Resistivity Schematic



## Electrode Configurations



**DAMES & MOORE**

**RESISTIVITY SCHEMATIC  
AND ELECTRODE CONFIGURATION**

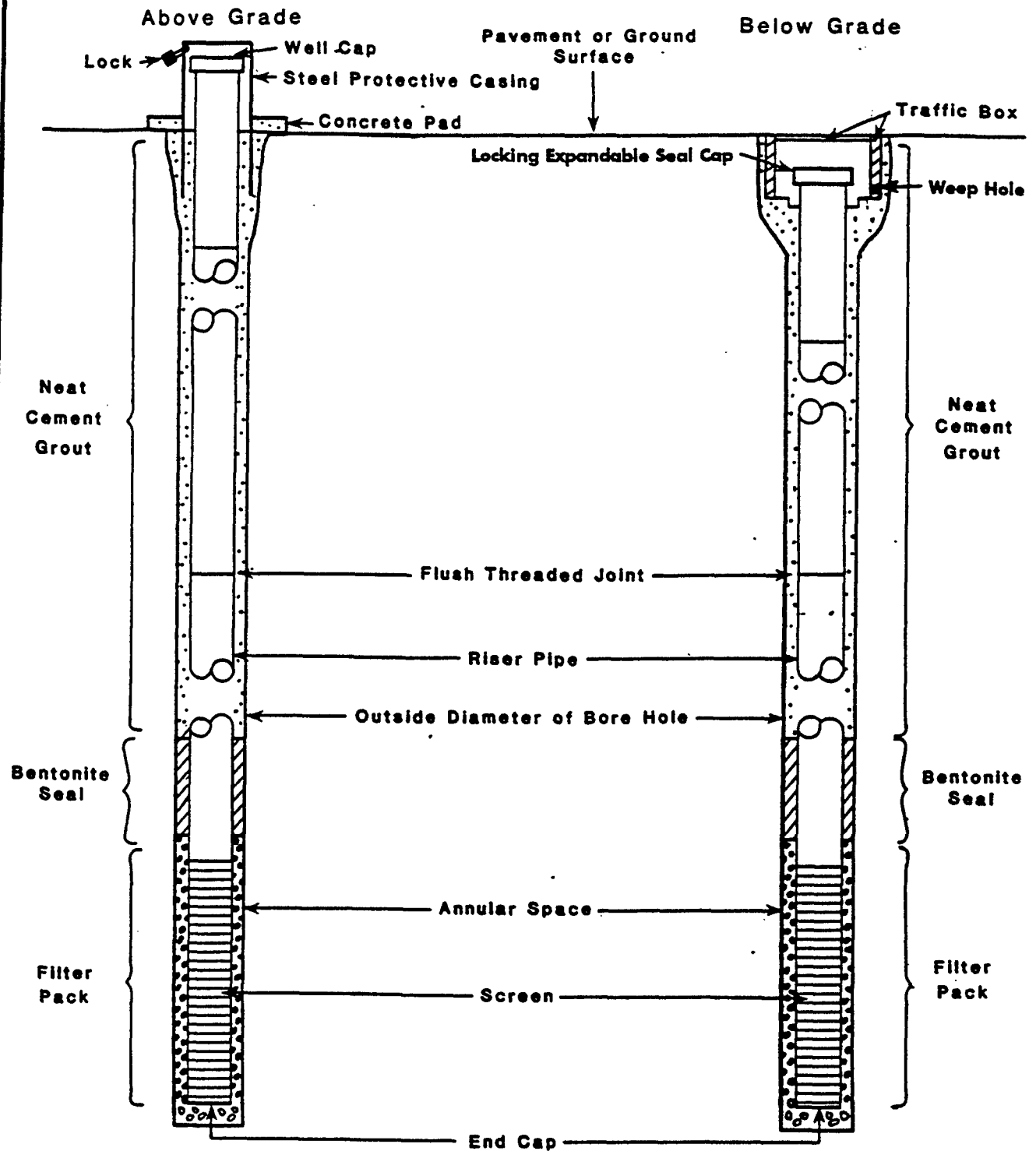
PSF25191\DV1

(after Zohdy, et. al., 1984; and Benson, et. al., 1982)

Date: January 1997

Figure 3.2-1





**DAMES & MOORE**

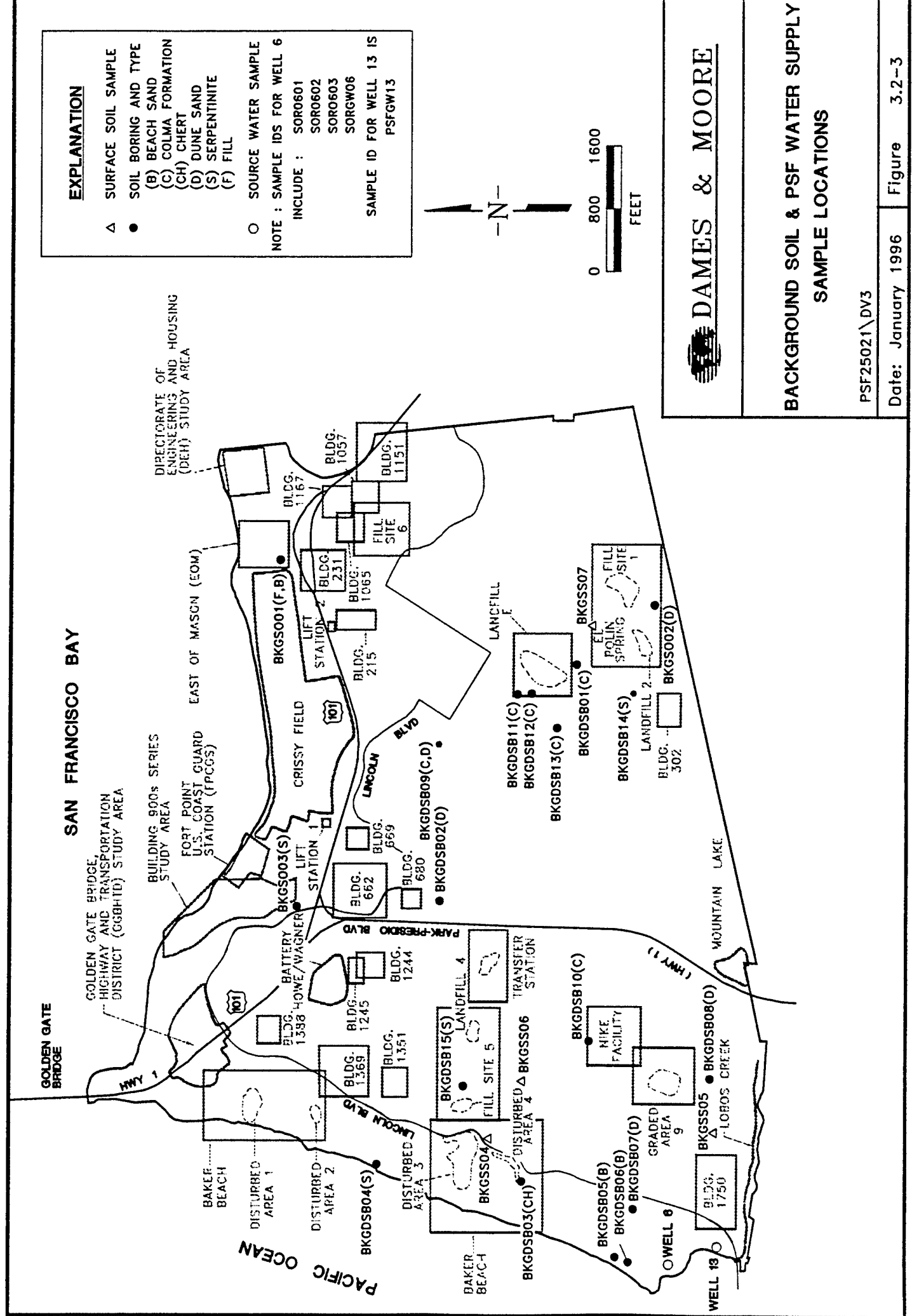
**TYPICAL MONITORING WELL  
CONSTRUCTION**

PSF25190\DV1

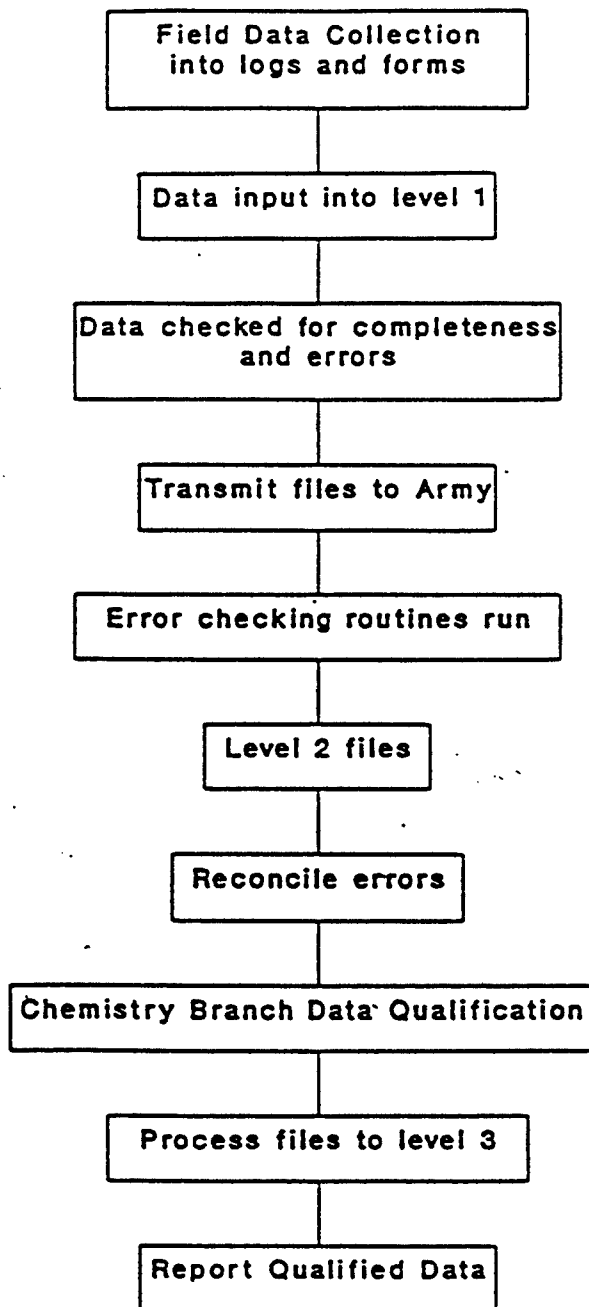
Date: January 1997

Figure 3.2-2









**DAMES & MOORE**

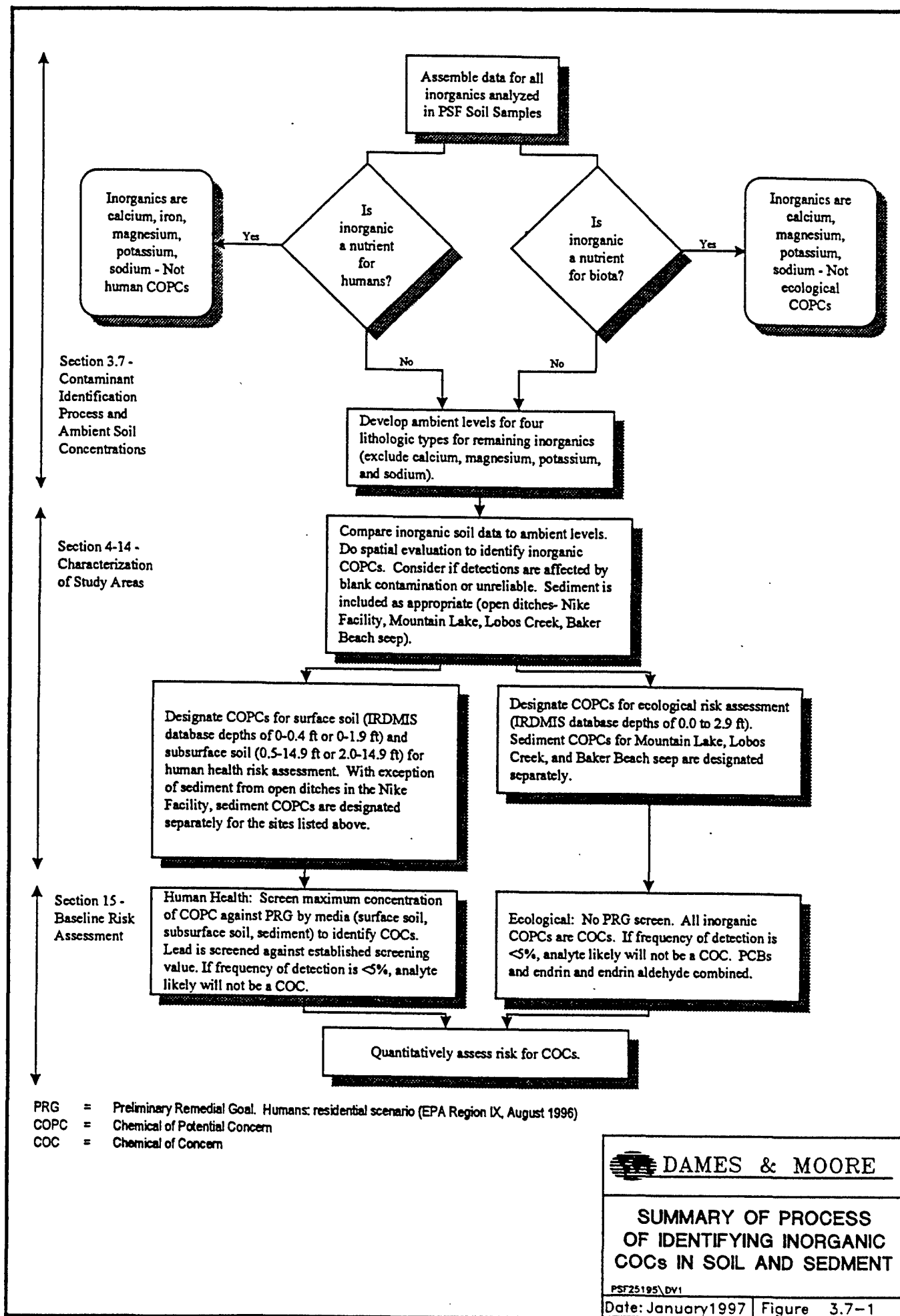
**DATA MANAGEMENT  
FLOW SCHEME**

PSF25193\DV1

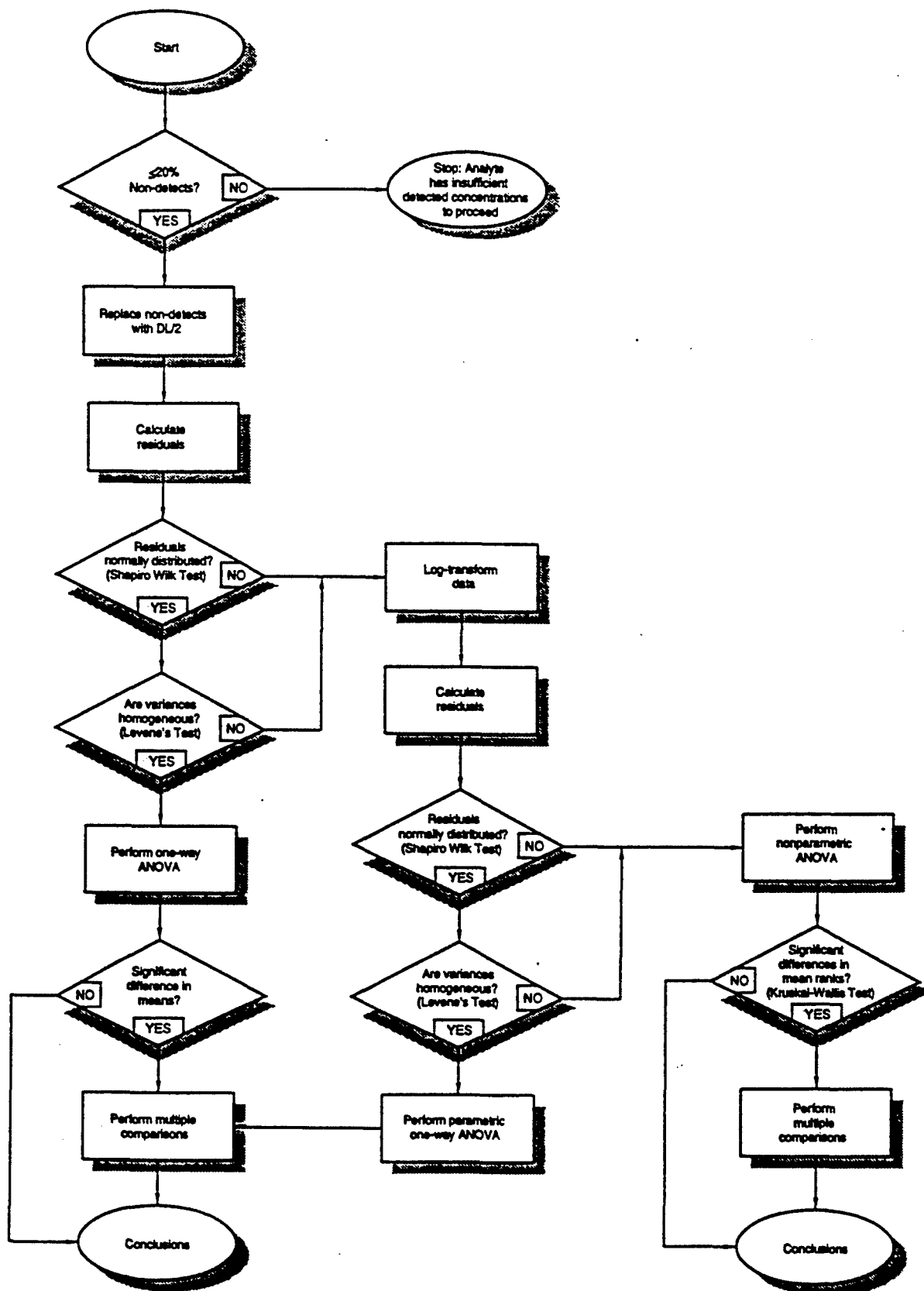
Date: January 1997

Figure 3.4-1







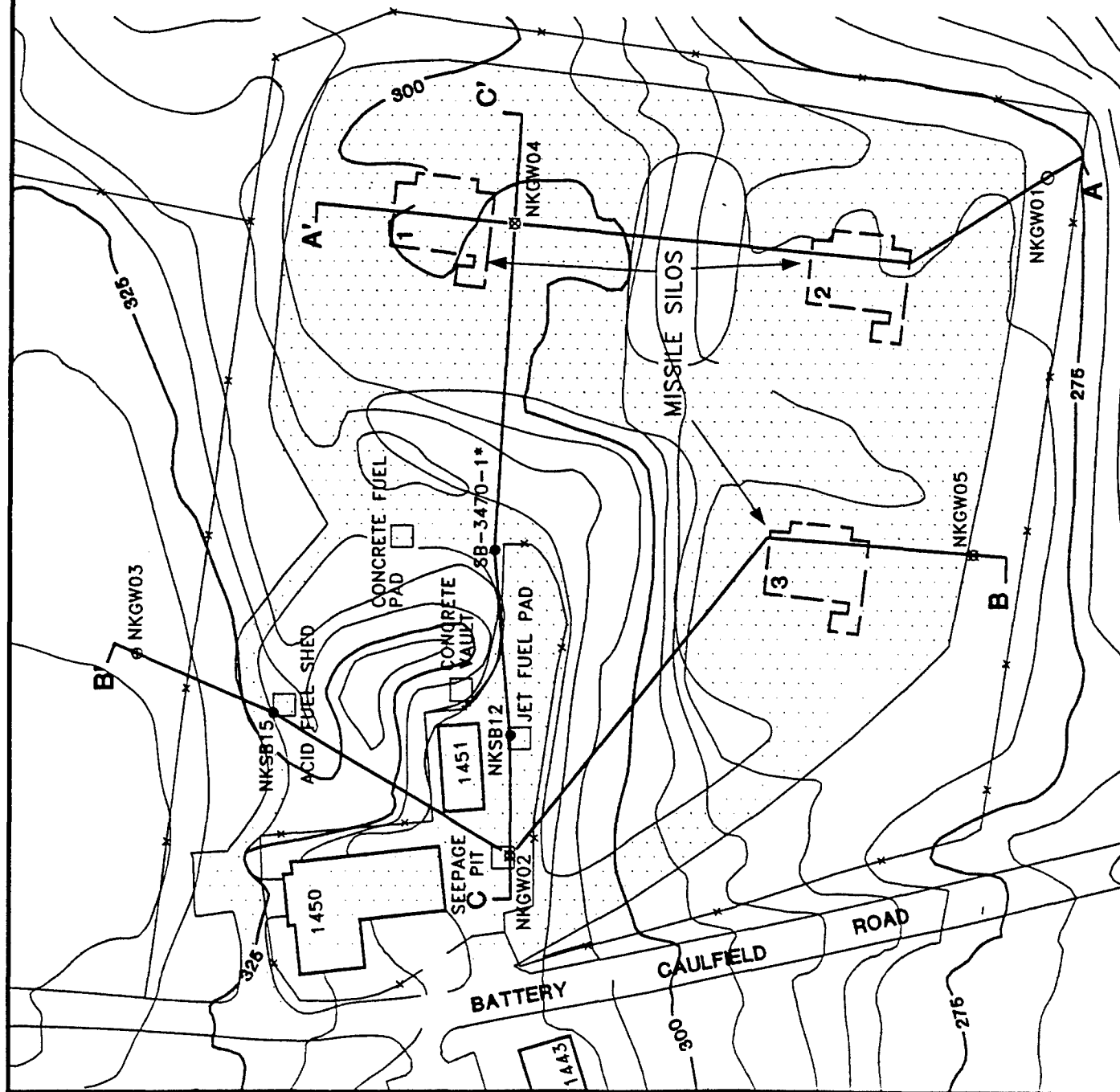


**DAMES & MOORE**

Method for Performing Statistical Comparisons of Background Chemical Data

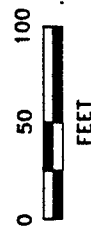
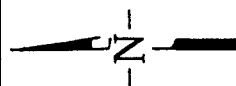
Date: January 1997 Figure: 3.7-2





# **EXPLANATION**

- PRECONSTRUCTION GEOTECHNICAL SOIL BORING (USCOE, 1954)
- MONITORING WELL WITH SOIL SAMPLES
- ⊕ INTERMEDIATE MONITORING WELL
- ⊗ DEEP MONITORING WELL
- A A' CROSS SECTION LINE
- ▢ SURFACES COVERED BY PAVEMENT OR BUILDINGS
- 325 — TOPOGRAPHIC CONTOUR
- CONTOUR INTERVAL 5 FEET
- ELEVATIONS IN FEET—PRESIDIO LOWER LOW WATER
- \* PRECONSTRUCTION GEOTECHNICAL SOIL BORING (USCOE, 1954)



**DAMES & MOORE**

## **NIKE FACILITY STUDY AREA AND CROSS SECTION LOCATION MAP**

PSF25085\DV1

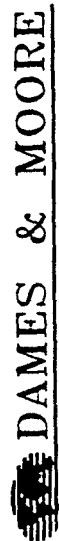
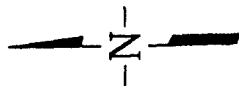
Date: January 1997

Figure 4.1-1



# EXPLANATION

- \* WIPE SAMPLE
- ▼ SEDIMENT SAMPLE FROM STORM DRAIN/ DRAINAGE DITCH
- ✕ SEDIMENT SAMPLE FROM PAVED SURFACE
- SURFACE WATER SAMPLE
- ▲ DRAINAGE DITCH WITH FLOW DIRECTION
- STORM DRAIN WITH FLOW DIRECTION



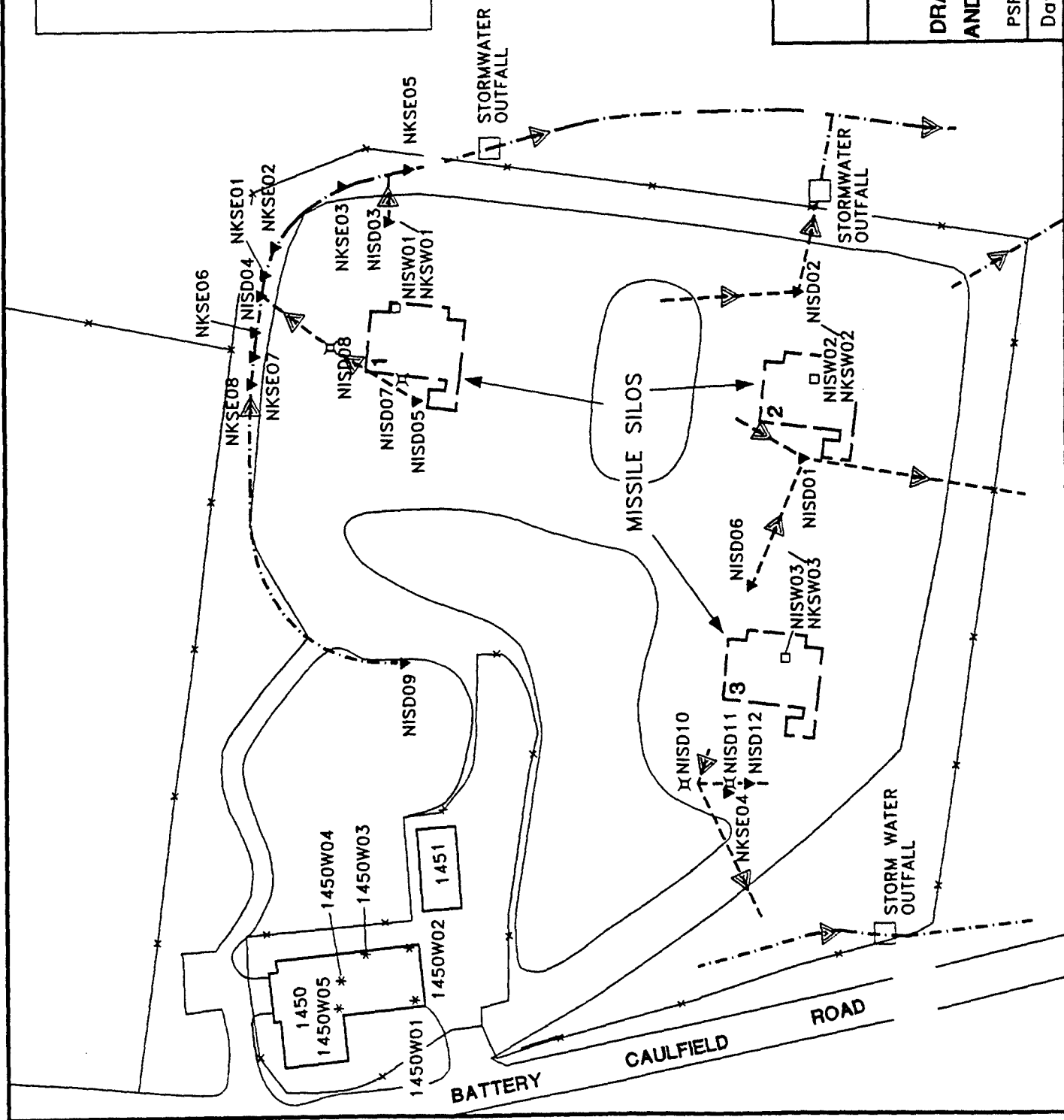
NIKE FACILITY

DRAINAGE STRUCTURES, WIPE, SEDIMENT,  
AND SURFACE WATER SAMPLE LOCATIONS

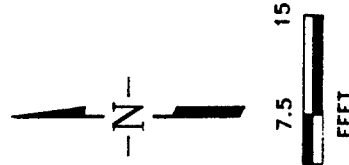
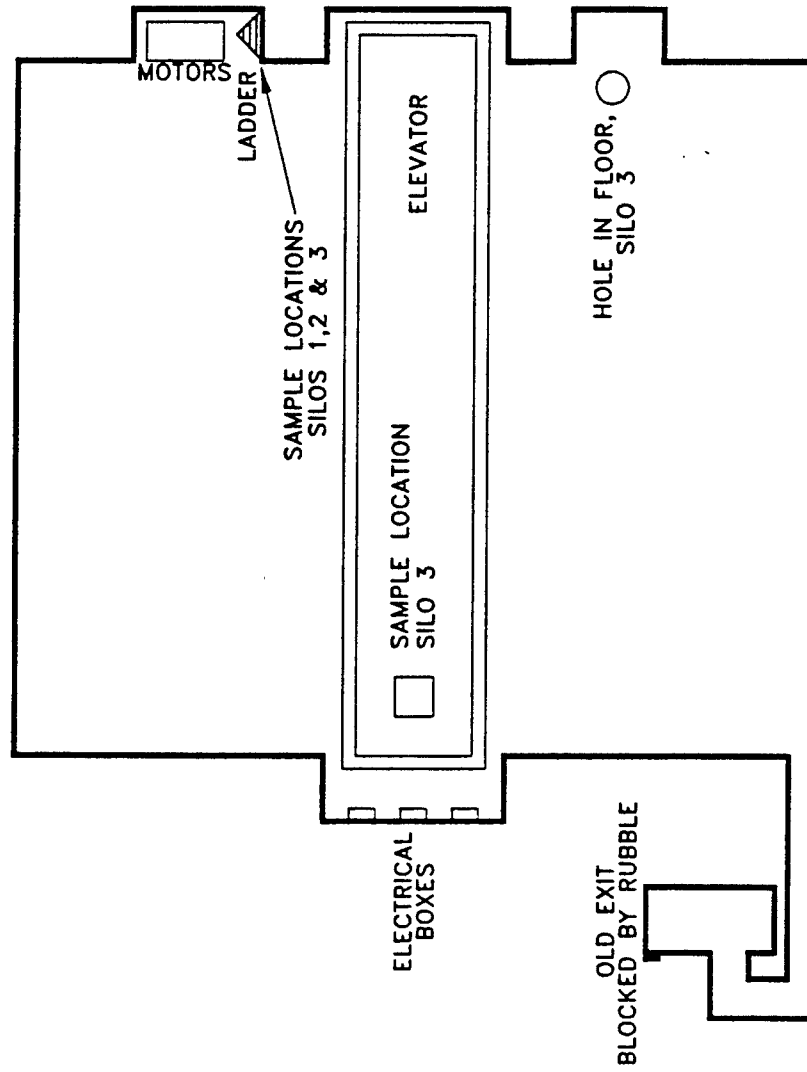
PSF25069\DV1

Date: January 1997

Figure 4.1-2







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**NIKE FACILITY  
MISSILE SILO PLAN MAP**

PSF25086\DV1

Date: January 1997

Figure 4.1-3



Elevation  
(ft-PLL)

# SOUTH A

310  
300  
290  
280  
270  
260  
250  
240  
230  
220

Well  
NKGW01

Paved Area

SILLO 2

Paved Area

Artificial Fill

Dune Sand

Colma Formation

Franciscan Formation

T.D. 48.0

- Artificial Fil
- Clay
- Silt
- Sand
- Serpentinite



**NORTH  
A'**

Cross-Section  
C-C'  
Intersection

Elevation  
(ft-PLL)

Paved Area

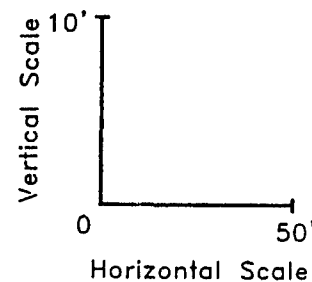
Well  
NKGW04

SILO 1

Paved Area

Paved Area

T.D. 20.5



**EXPLANATION**

	Artificial Fill		Contact, dashed where inferred
	Clay		Water Level (04/03/95)
	Silt	T.D.	Total Depth (ft bgs)
	Sand	ft-PLL	feet-Presidio Lower Low Water
	Serpentinite	(a)	Approximate location & elevation
			Well Screen Interval

DAMES & MOHR

**NIKE FACILITY  
CROSS SECTION**

PSF25150/DV1

Date: January 1997

Figure

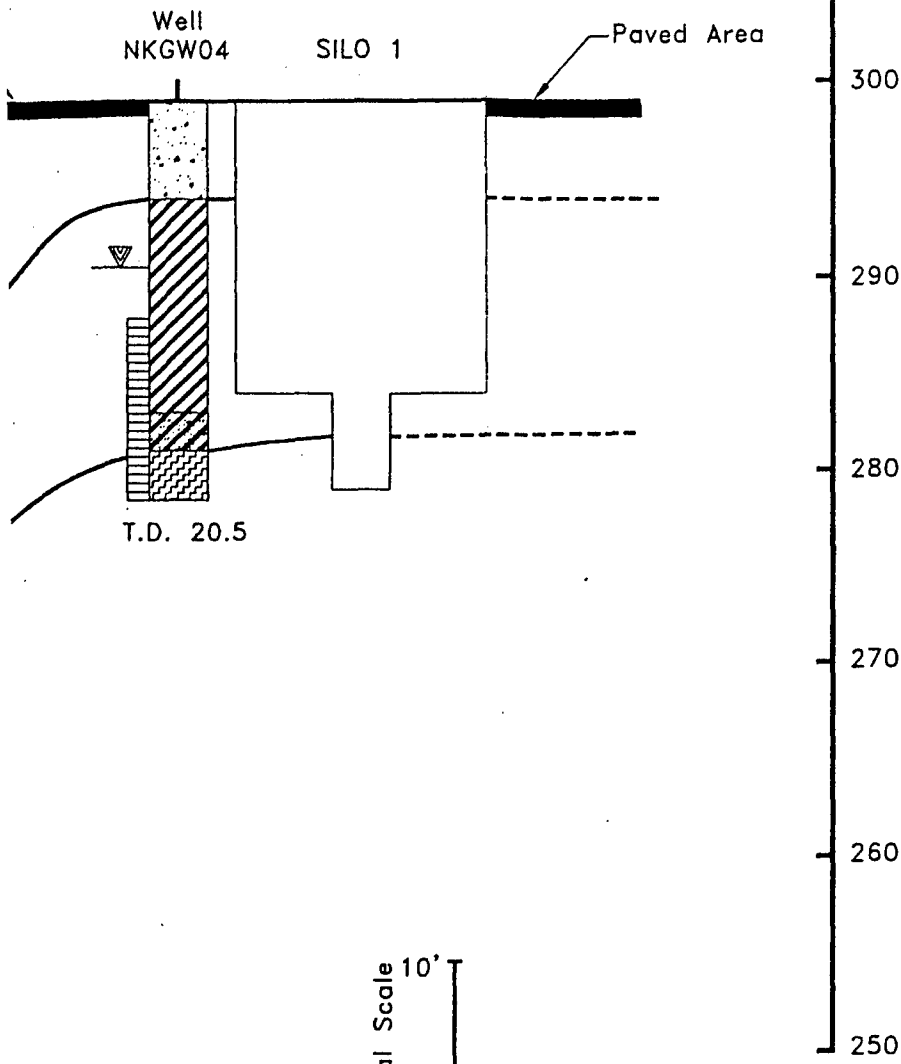
2



# NORTH A'

Cross-Section  
C-C'  
Intersection

Elevation  
(ft-PLL)



ashed where inferred

el (04/03/95)

th (ft bgs)

idio Lower Low Water

ite location & elevation

in Interval



**DAMES & MOORE**

**NIKE FACILITY  
CROSS SECTION A-A'**

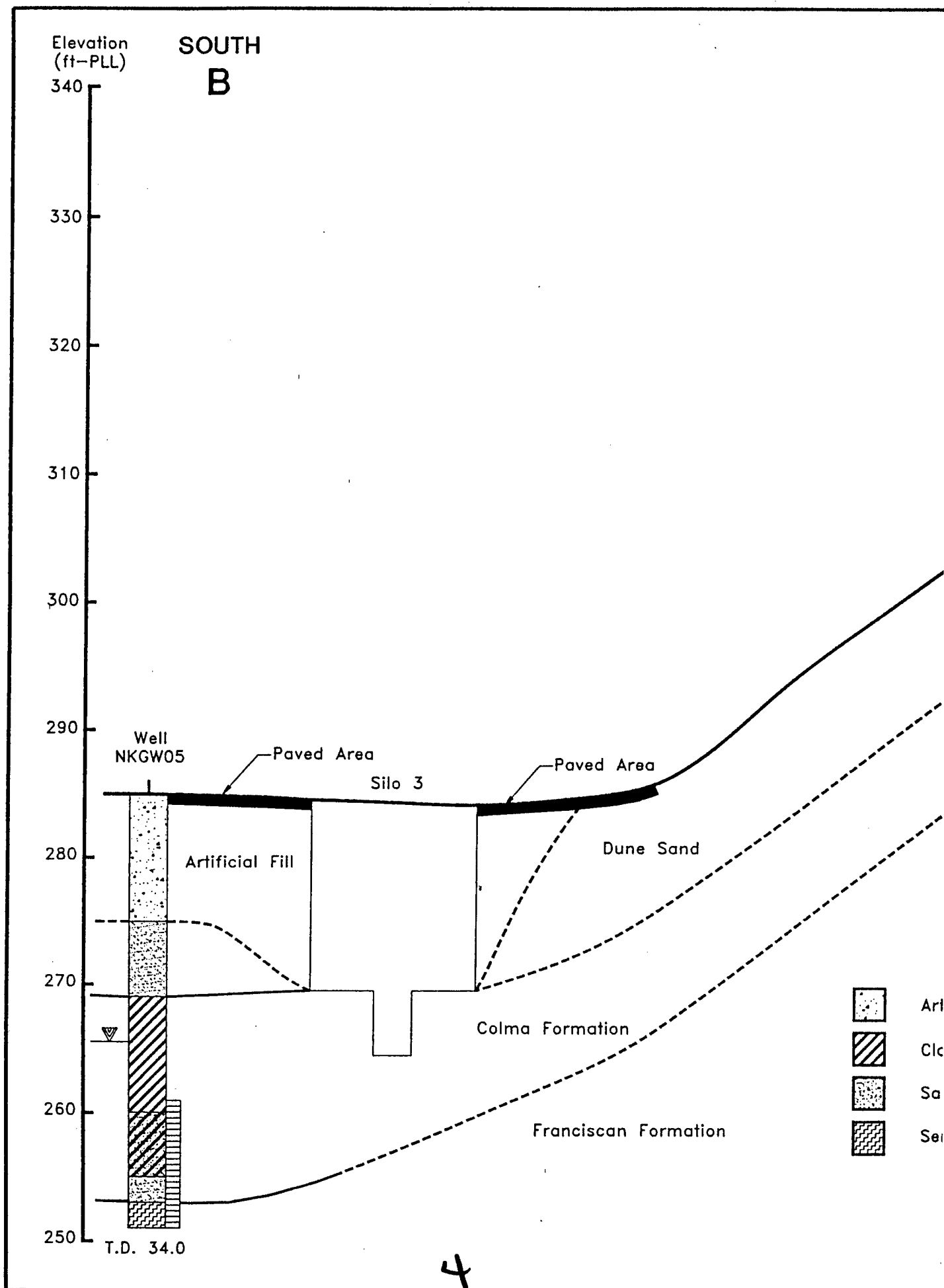
PSF25150/DV1

Date: January 1997

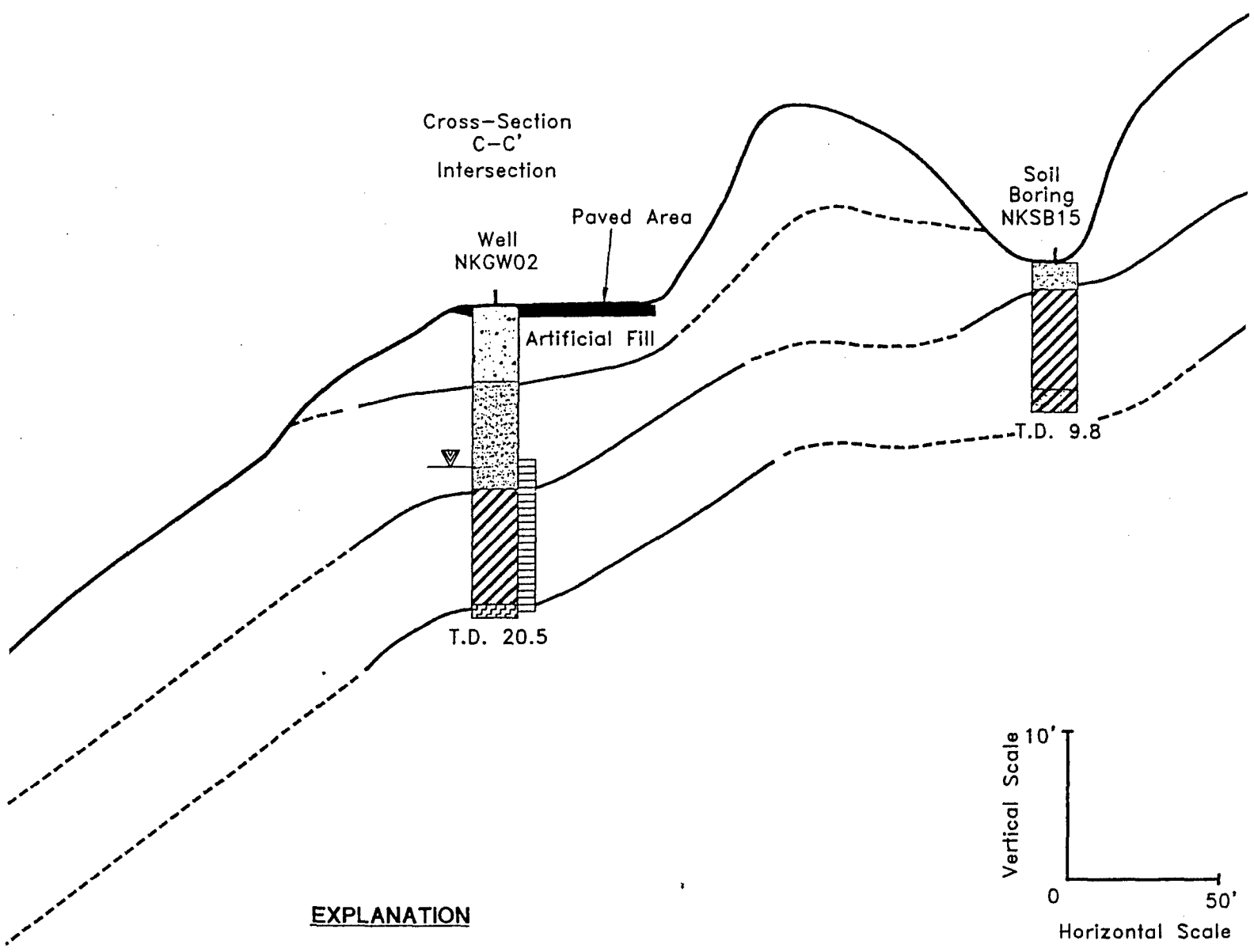
Figure 4.1-4

3









**EXPLANATION**

- |     |                                  |        |                                |
|-----|----------------------------------|--------|--------------------------------|
|     | Artificial Fill                  |        | Contact, dashed where inferred |
|     | Clay                             |        | Water Level (04/03/95)         |
|     | Sand                             | T.D.   | Total Depth (ft bgs)           |
|     | Serpentinite                     | ft-PLL | feet-Presidio Lower Low Water  |
| (a) | Approximate location & elevation |        |                                |
|     | Well Screen Interval             |        |                                |

**DAMES** 8

**NIKE FAC  
CROSS SEC**

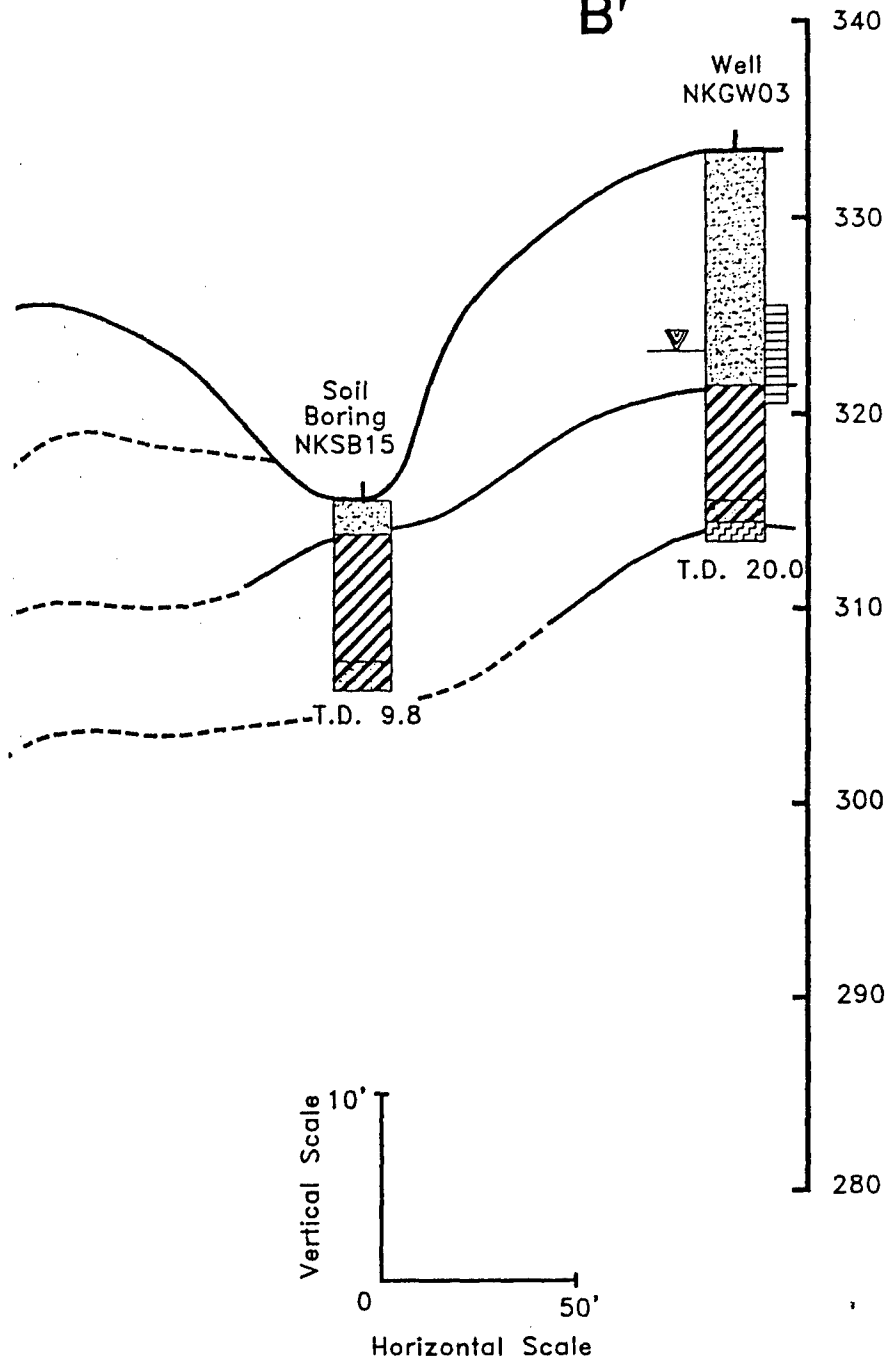
PSF25072/DV1

Date: January 1997



NORTH  
B'

Elevation  
(ft-PLL)



re inferred

95)

Low Water

& elevation



DAMES & MOORE

NIKE FACILITY  
CROSS SECTION B-B'

PSF25072/DV1

Date: January 1997

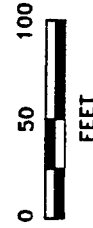
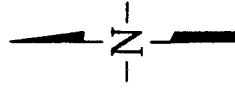
Figure 4.1-5

6



# EXPLANATION

- SOIL BORING
- MONITORING WELL WITH SOIL SAMPLE
- ⊕ INTERMEDIATE MONITORING WELL
- ⊗ DEEP MONITORING WELL



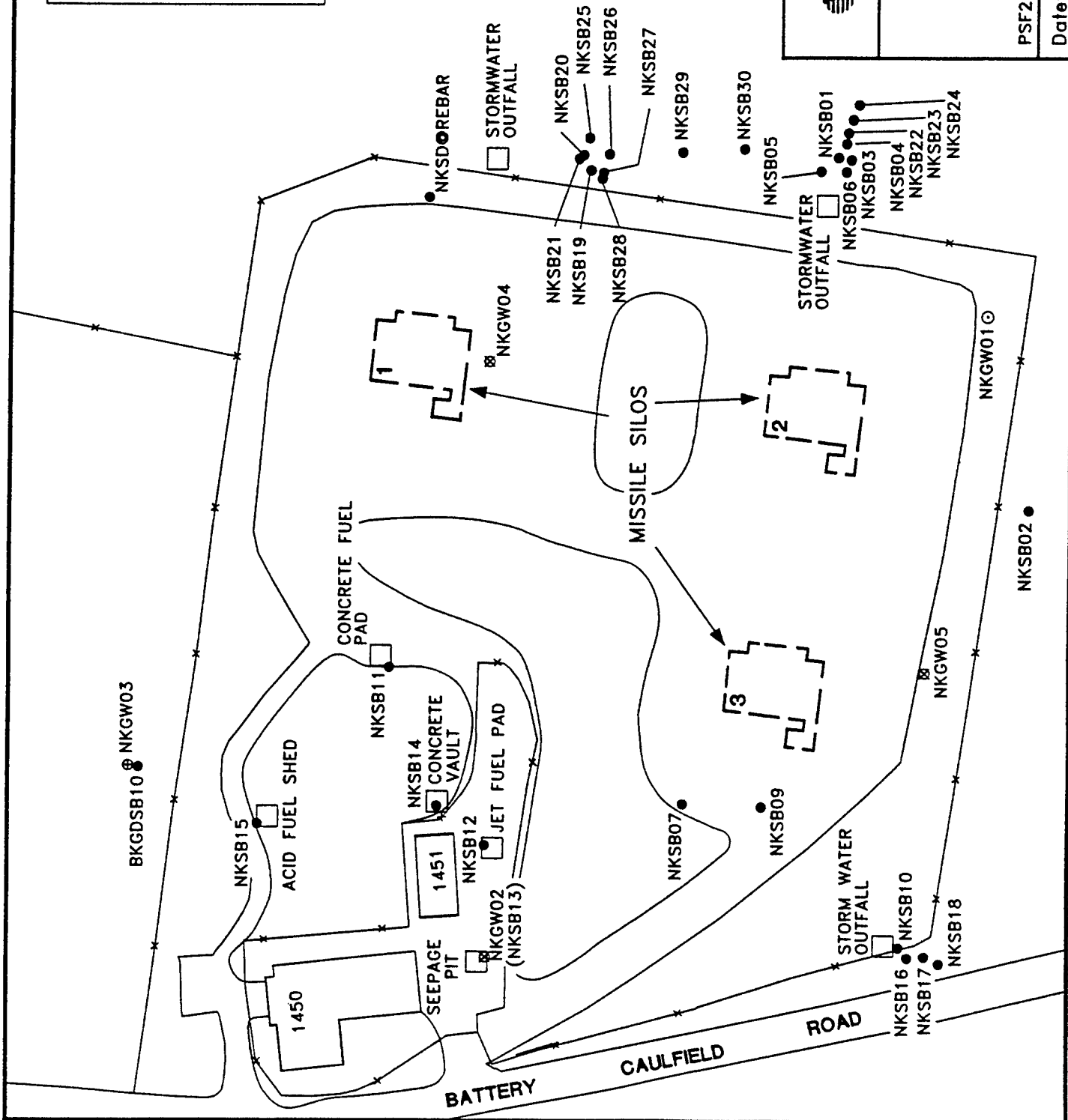
**DAMES & MOORE**

## NIKE FACILITY MONITORING WELL AND SOIL BORING LOCATIONS

PSF26022\DV4

Date: January 1997

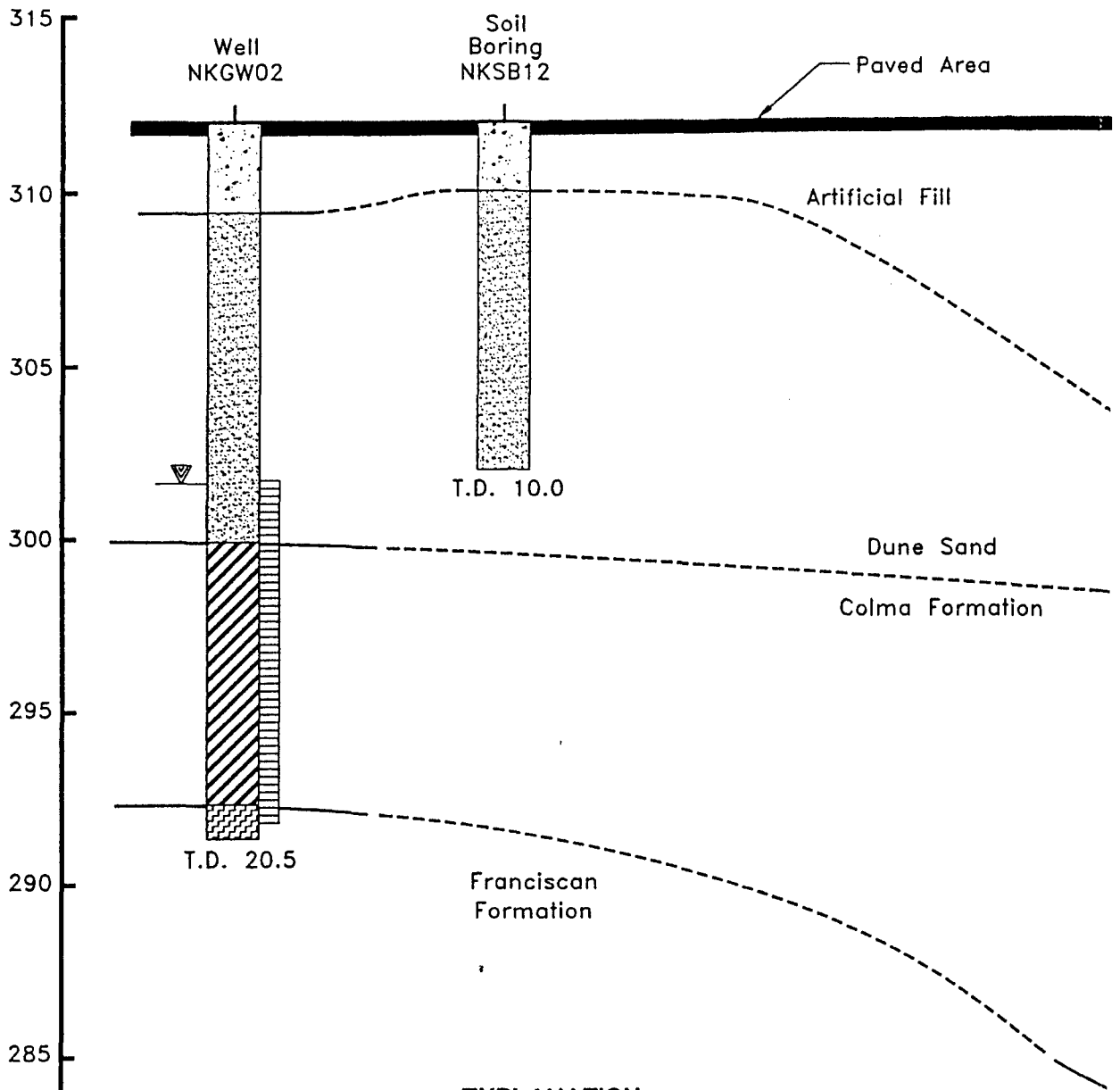
Figure 4.2-1





# WEST C

Elevation  
(ft-PLL)  
Cross-Section  
B-B'  
Intersection

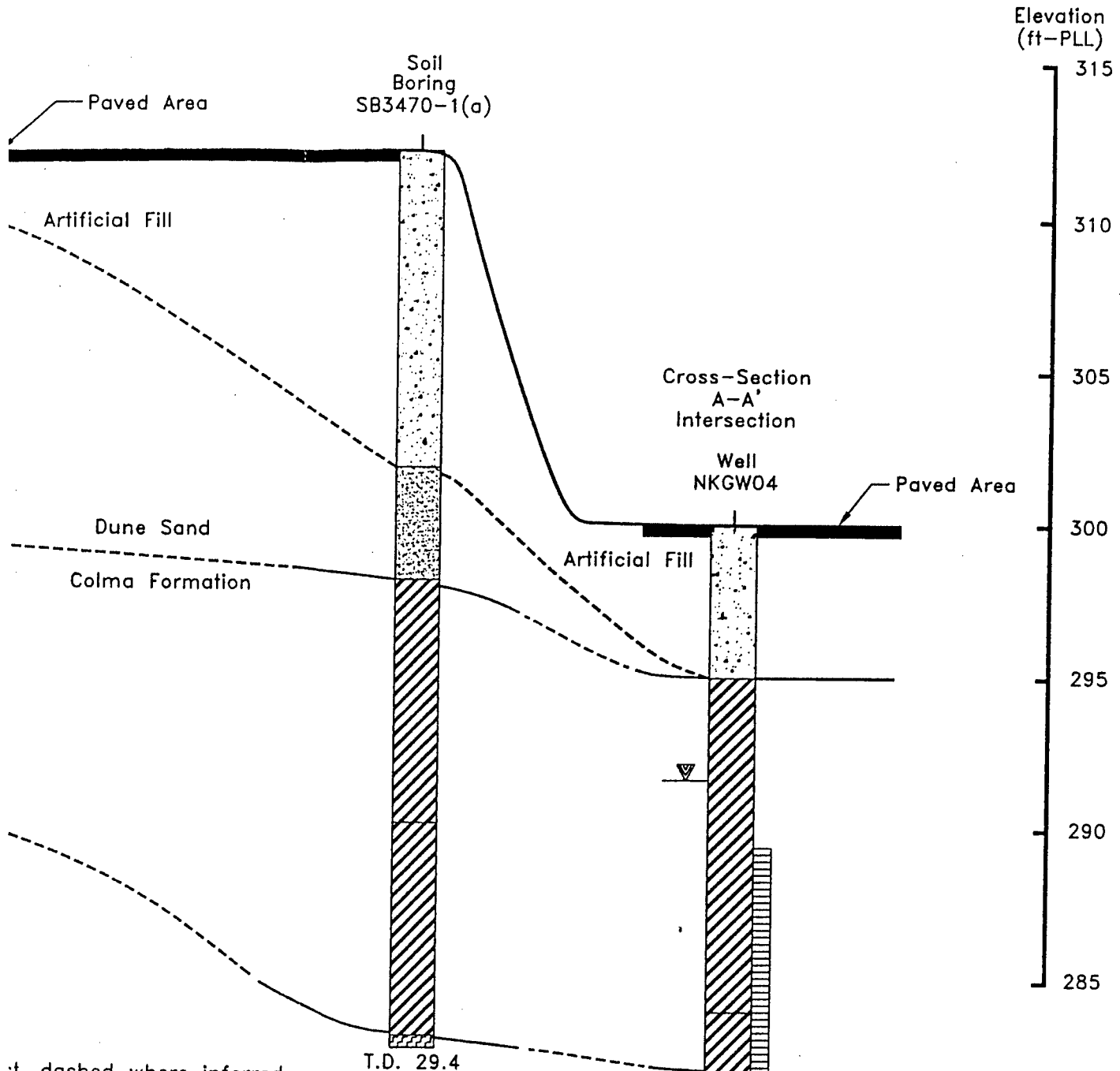


## EXPLANATION

	Artificial Fill		Contact, dashed where inferred
	Clay		Water Level (04/03/95)
	Sand	T.D.	Total Depth (ft bgs)
	Serpentine	ft-PLL	feet-Presidio Lower Low Water
		(a)	Approximate location & elevation
			Well Screen Interval



EAST  
C'



dit, dashed where inferred

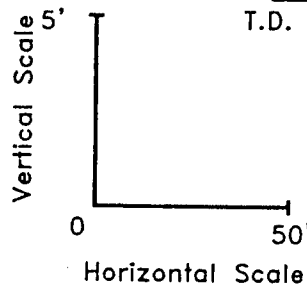
Level (04/03/95)

Depth (ft bgs)

Presidio Lower Low Water

imate location & elevation

reen Interval



2

 DAMES

NIKE  
CROSS S

PSF25073/DV2

Date: January 1997



EAST  
C'

Elevation  
(ft-PLL)

315

310

305

300

295

290

285

ection  
ction

'04

Paved Area

1.5



DAMES & MOORE

NIKE FACILITY  
CROSS SECTION C-C'

PSF25073/DV2

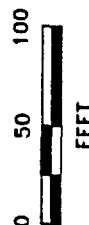
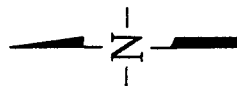
Date: January 1997

Figure 4.3-1



# EXPLANATION

- MONITORING WELL WITH SOIL SAMPLE
- ⊕ INTERMEDIATE MONITORING WELL
- ⊗ DEEP MONITORING WELL
- (252.7) POTENTIOMETRIC SURFACE ELEVATION (04/03/95)
- 250- EQUIPOTENTIAL CONTOUR, (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION
- CONTOUR INTERVAL 10 FEET
- ELEVATIONS IN FEET - PRESIDIO LOWER LOW WATER

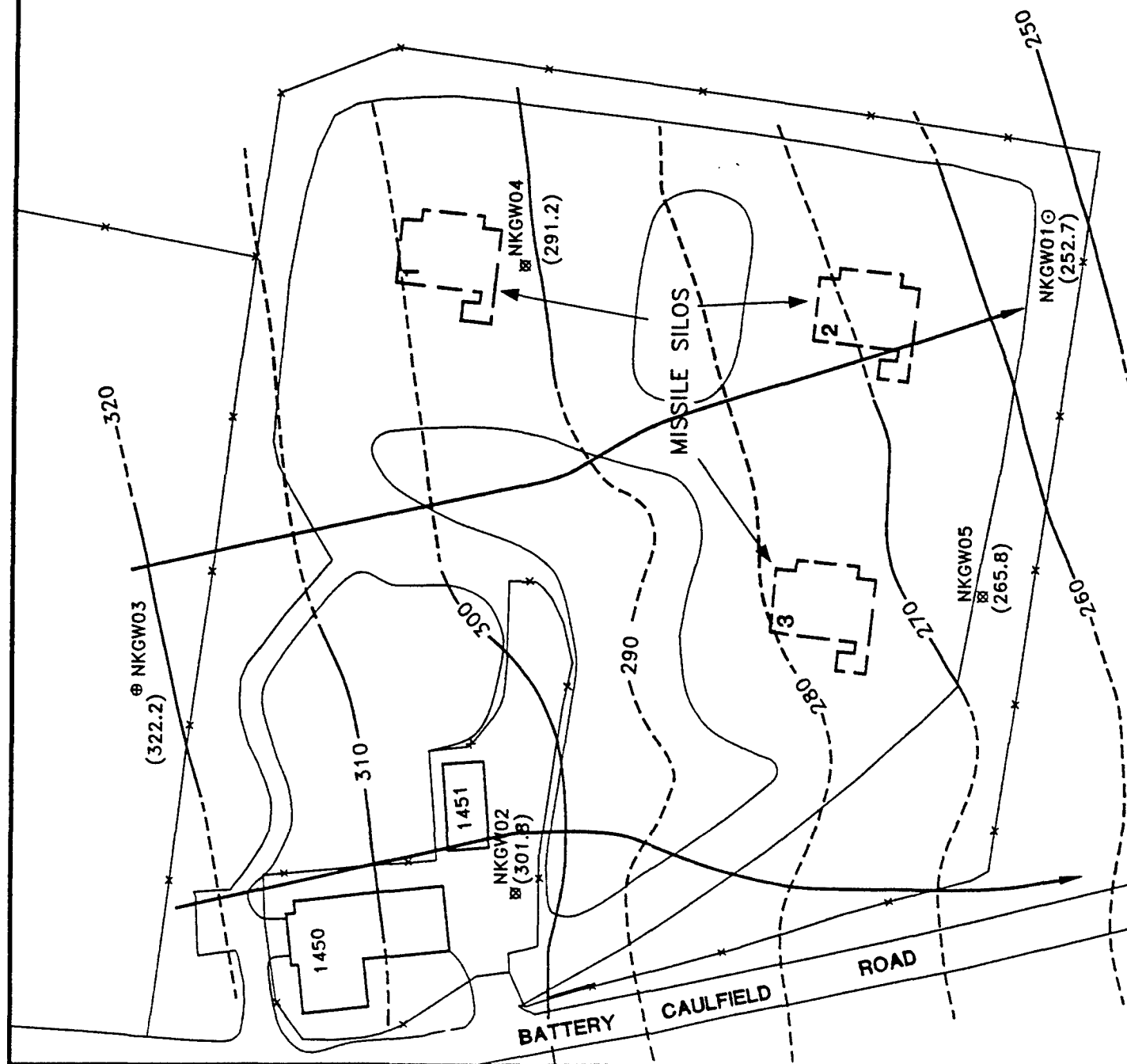


**DAMES & MOORE**

## NIKE FACILITY POTENTIOMETRIC SURFACE MAP

PSF25071\DV1

Date: January 1997 Figure 4.3-2





NKSBB15			
DEPTH	0.0'	5.0'	9.5'
LITHOLOGY	BE/DU	COLMA	COLMA
Chromium	27.9	53.8	138 a

NKSBB14			
DEPTH	0.0'	5.0'	9.5'
LITHOLOGY	BE/DU	BE/DU	COLMA
Chromium	46.2	41.5	53.8

NKSBB13			
DEPTH	0.0'	5.0'	10.0'
LITHOLOGY	FILL	BE/DU	COLMA
Chromium	28.0	36.9	40.2

NKSBB12			
DEPTH	1.0'	4.5'	9.0'
LITHOLOGY	BE/DU	BE/DU	BE/DU
Chromium	38.4	37.7	21.1

NISD10	
DEPTH	0.0'
LITHOLOGY	MISC
Chromium	63.986

NISD11	
DEPTH	0.0'
LITHOLOGY	MISC
Chromium	53.511

NKSBB02		
DEPTH	0.0'	2.0'
LITHOLOGY	FILL	FILL
Chromium	43.400	41.8

BKGDSB10			
DEPTH	3.5'	7.5'	18.0'
LITHOLOGY	BE/DU	BE/DU	SERP
Chromium	28.3 n	17.9 n	1290 n

NKSBB11		
DEPTH	0.5'	4
LITHOLOGY	BE/DU	BE
Chromium	31.3	25

BATTERY CAULFIELD ROAD

ACID FUEL SHED

CONCRETE FUEL PAD

SEEPAGE PIT

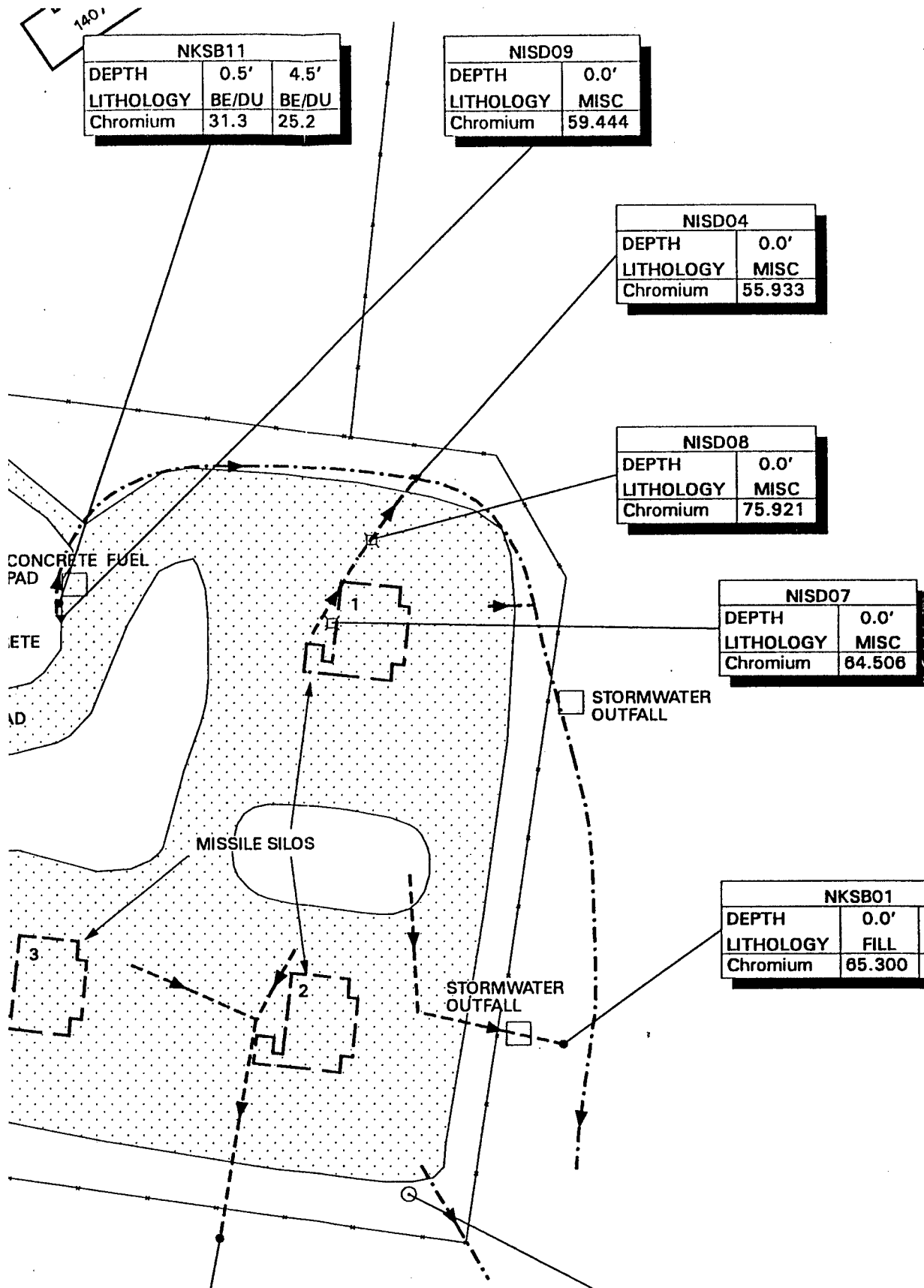
CONCRETE VAULT

JET FUEL PAD

MISSILE SILO

STORMWATER OUTFALL





NKS011		
DEPTH	0.5'	4.5'
LITHOLOGY	BE/DU	BE/DU
Chromium	31.3	25.2

NISD09	
DEPTH	0.0'
LITHOLOGY	MISC
Chromium	59.444

NISD04	
DEPTH	0.0'
LITHOLOGY	MISC
Chromium	55.933

NISD08	
DEPTH	0.0'
LITHOLOGY	MISC
Chromium	75.921

NISD07	
DEPTH	0.0'
LITHOLOGY	MISC
Chromium	84.508

NKS001		
DEPTH	0.0'	3.0'
LITHOLOGY	FILL	FILL
Chromium	65.300	75.600

NKS002		
DEPTH	0.0'	2.0'
LITHOLOGY	FILL	FILL
Chromium	43.400	41.800

NKGW01		
DEPTH	1.0'	10.5'
LITHOLOGY	FILL	FILL
Chromium	105.000	41.800

- EX
- MONITORING SAMPLES
  - SOIL BORING
  - ▼ SEDIMENT S. DITCH
  - SEDIMENT S. SURFACE
  - > DRAINAGE D
  - > STORM DRAIN
  - ▨ SURFACES C
  - ▨ PAVEMENT C

NOTES: 1. ALL CONCENTRATIONS  
2. DATA FOOTNOTES ARE INCLUDED AT SECTION.



NIKI  
CONCENTRATION

PSF26194

Date: January 1997

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NISD04	
DEPTH	0.0'
LITHOLOGY	MISC
Chromium	55.933

NISD08	
DEPTH	0.0'
LITHOLOGY	MISC
Chromium	75.921

NISD07	
DEPTH	0.0'
LITHOLOGY	MISC
Chromium	64.506

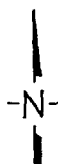
AWATER  
ALL

NKSB01		
DEPTH	0.0'	3.0'
LITHOLOGY	FILL	FILL
Chromium	65.300	75.600

#### EXPLANATION

- ⊙ MONITORING WELL WITH SOIL SAMPLES
- SOIL BORING
- ▼ SEDIMENT SAMPLE FROM DRAINAGE DITCH
- SEDIMENT SAMPLE FROM A PAVED SURFACE
- ➔ DRAINAGE DITCH WITH FLOW DIRECTION
- ➔ STORM DRAIN WITH FLOW DIRECTION
- ▣ SURFACES COVERED BY PAVEMENT OR BUILDINGS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .  
2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.



**DAMES & MOORE**

### NIKE FACILITY CONCENTRATIONS OF CHROMIUM IN SOIL

PSF26194

Date: January 1997

Figure 4.5-1

10.5'
FILL
41.600



NKS15			
DEPTH	0.0'	5.0'	9.5'
LITHOLOGY	BE/DU	COLMA	COLMA
Copper	17.1	20.8	151 a

NKS14			
DEPTH	0.0'	5.0'	9.5'
LITHOLOGY	BE/DU	BE/DU	COLMA
Copper	15.2	8.45	24.4

NKS13			
DEPTH	0.0'	5.0'	10.0'
LITHOLOGY	FILL	BE/DU	COLMA
Copper	11.2	3.80	3.92

NKS12			
DEPTH	1.0'	4.5'	9.0'
LITHOLOGY	BE/DU	BE/DU	BE/DU
Copper	34.4	13.7	33.5

NIS10	
DEPTH	0.0'
LITHOLOGY	MISC
Copper	28.240

BKGDSB10			
DEPTH	3.5'	7.5'	18.0'
LITHOLOGY	BE/DU	BE/DU	SERP
Copper	8.61	18.4	64.6

NKS11		
DEPTH	0.5'	
LITHOLOGY	BE/DU	BI
Copper	16.5	3.

NIS11	
DEPTH	0.0'
LITHOLOGY	MISC
Copper	25.012

NKS02		
DEPTH	0.0'	2.0'
LITHOLOGY	FILL	FILL
Copper	33.700	43.2



1407

NKS011		
DEPTH	0.5'	4.5'
LITHOLOGY	BE/DU	BE/DU
Copper	16.5	3.12

NIS009	
DEPTH	0.0'
LITHOLOGY	MISC
Copper	10.879

NIS004	
DEPTH	0.0'
LITHOLOGY	MISC
Copper	287.172

NIS008	
DEPTH	0.0'
LITHOLOGY	MISC
Copper	217.168

NIS007	
DEPTH	0.0'
LITHOLOGY	MISC
Copper	278.832

NKS001		
DEPTH	0.0'	3.0'
LITHOLOGY	FILL	FILL
Copper	76.000	32.000

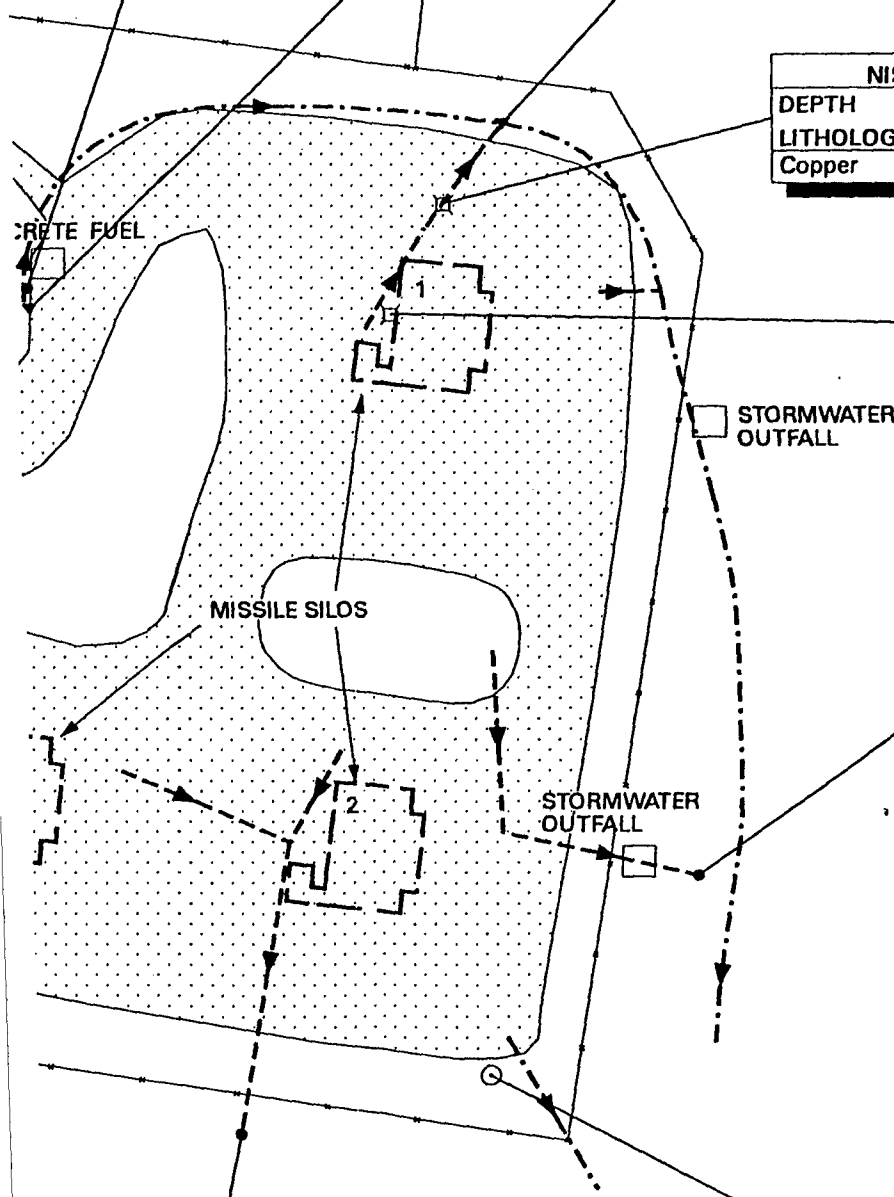
NKS002		
DEPTH	0.0'	2.0'
LITHOLOGY	FILL	FILL
Copper	33.700	43.200

NKGW01		
DEPTH	1.0'	10.5'
LITHOLOGY	FILL	FILL
Copper	15.600	8.450

**EXPLANATION**

- MONITORING W SAMPLES
- SOIL BORING
- ▼ SEDIMENT SAMI DITCH
- SEDIMENT SAMI SURFACE
- > DRAINAGE DITCH
- > STORM DRAIN W
- ▨ SURFACES COVE PAVEMENT OR BI

NOTES: 1. ALL CONCENTRATIC  
2. DATA FOOTNOTE AN ARE INCLUDED AT THE SECTION.



**DAMES &**

**NIKE FAC  
CONCENTRATIONS OF**

PSF26196

Date: January 1997

2

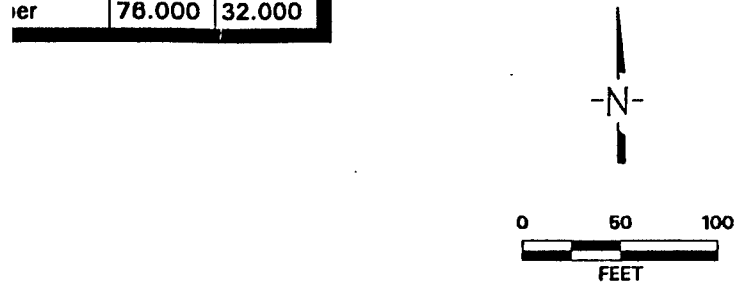


0.0'
MISC
7.172

0.0'
MISC
7.168

NISD07	
TH	0.0'
DIALOGY	MISC
er	278.832

NKS01		
TH	0.0'	3.0'
DIALOGY	FILL	FILL
er	78.000	32.000



### EXPLANATION

- ⊙ MONITORING WELL WITH SOIL SAMPLES
- SOIL BORING
- ▼ SEDIMENT SAMPLE FROM DRAINAGE DITCH
- ⊠ SEDIMENT SAMPLE FROM A PAVED SURFACE
- ▶ DRAINAGE DITCH WITH FLOW DIRECTION
- ▶ STORM DRAIN WITH FLOW DIRECTION
- ▢ SURFACES COVERED BY PAVEMENT OR BUILDINGS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .  
 2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.



**DAMES & MOORE**

### NIKE FACILITY CONCENTRATIONS OF COPPER IN SOIL

PSF26196

3

Date: January 1997

Figure 4.5-2



BKGDSB10			
DEPTH	3.5'	7.5'	18.0'
LITHOLOGY	BE/DU	BE/DU	SERP
Cyanide	<0.250	<0.250	<0.250

NKSBB11		
DEPTH	0.5'	4
LITHOLOGY	BE/DU	BE
Cyanide	<0.250	<1

NKSBB15			
DEPTH	0.0'	5.0'	9.5'
LITHOLOGY	BE/DU	COLMA	COLMA
Cyanide	0.597	0.430	0.516

NKSBB14			
DEPTH	0.0'	5.0'	9.5'
LITHOLOGY	BE/DU	BE/DU	COLMA
Cyanide	0.509	0.345	0.485

NKSBB13			
DEPTH	0.0'	5.0'	10.0'
LITHOLOGY	FILL	BE/DU	COLMA
Cyanide	<0.250	0.356	0.321

NKSBB12			
DEPTH	1.0'	4.5'	9.0'
LITHOLOGY	BE/DU	BE/DU	BE/DU
Cyanide	<0.250	<0.250	<12.5 a

NISD10	
DEPTH	0.0'
LITHOLOGY	MISC
Cyanide	<0.250

NISD11	
DEPTH	0.0'
LITHOLOGY	MISC
Cyanide	<0.250

NKSBB02		
DEPTH	0.0'	2.0
LITHOLOGY	FILL	FIL
Cyanide	<0.920	<0.9

BATTERY CAULFIELD ROAD

ACID FUEL SHED

CONCRETE FUEL PAD

SEEPAGE PIT

CONCRETE VAULT

JET FUEL PAD

MISSILE SILOS

STORMWATER  
OUTFALL



NKS011		
PTH	0.5'	4.5'
LITHOLOGY	BE/DU	BE/DU
Cyanide	<0.250	<12.5 a

NIS009	
DEPTH	0.0'
LITHOLOGY	MISC
Cyanide	<0.250

NIS004	
DEPTH	0.0'
LITHOLOGY	MISC
Cyanide	0.405

NIS008	
DEPTH	0.0'
LITHOLOGY	MISC
Cyanide	0.336

NIS007	
DEPTH	0.0'
LITHOLOGY	MISC
Cyanide	<0.250

NKS001		
DEPTH	0.0'	3.0'
LITHOLOGY	FILL	FILL
Cyanide	<0.920	<0.920

NKS002		
PTH	0.0'	2.0'
LITHOLOGY	FILL	FILL
Cyanide	<0.920	<0.920

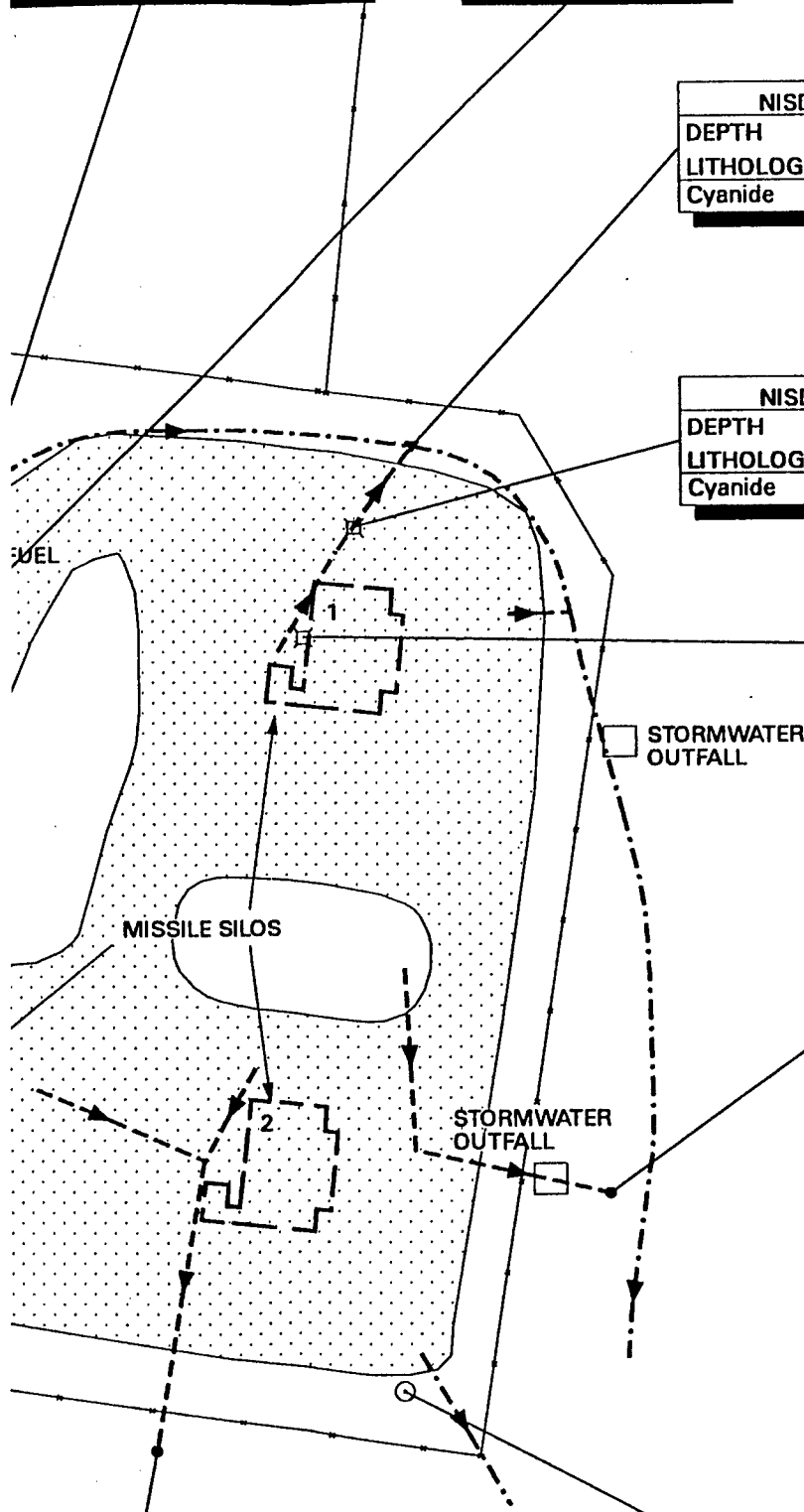
NKGW01		
DEPTH	1.0'	10.5'
LITHOLOGY	FILL	FILL
Cyanide	<0.920	<0.920

**EXPLANATION**

- MONITORING WELL WITH SAMPLES
- SOIL BORING
- ▼ SEDIMENT SAMPLE FROM DRAIN/DRAINAGE DITCH
- SEDIMENT SAMPLE FROM SURFACE
- > DRAINAGE DITCH WITH F
- > STORM DRAIN WITH FLOW
- ▨ SURFACES COVERED BY PAVEMENT OR BUILDING

NOTES: 1. ALL CONCENTRATIONS REPRESENTED IN THIS REPORT ARE IN MICROGRAMS PER LITER (PPB).

2. DATA FOOTNOTE AND LITHOLOGY ARE INCLUDED AT THE END OF EACH SECTION.



**DAMES & MOORE**

**NIKE FACILITY  
CONCENTRATIONS OF CYANIDE**

PSF26197

Date: January 1997

Fi

2



# EXPLANATION

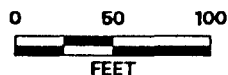
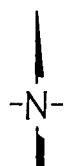
- ⊙ MONITORING WELL WITH SOIL SAMPLES
- SOIL BORING
- ▼ SEDIMENT SAMPLE FROM STORM DRAIN/DRAINAGE DITCH
- ⊠ SEDIMENT SAMPLE FROM A PAVED SURFACE
- ▶ DRAINAGE DITCH WITH FLOW DIRECTION
- ▶ STORM DRAIN WITH FLOW DIRECTION
- ▢ SURFACES COVERED BY PAVEMENT OR BUILDINGS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

NISD07	
	0.0'
LITHOLOGY	MISC
Concentration	<0.250

NKSB01		
	0.0'	3.0'
LITHOLOGY	FILL	FILL
Concentration	<0.920	<0.920



**DAMES & MOORE**

## NIKE FACILITY CONCENTRATIONS OF CYANIDE IN SOIL

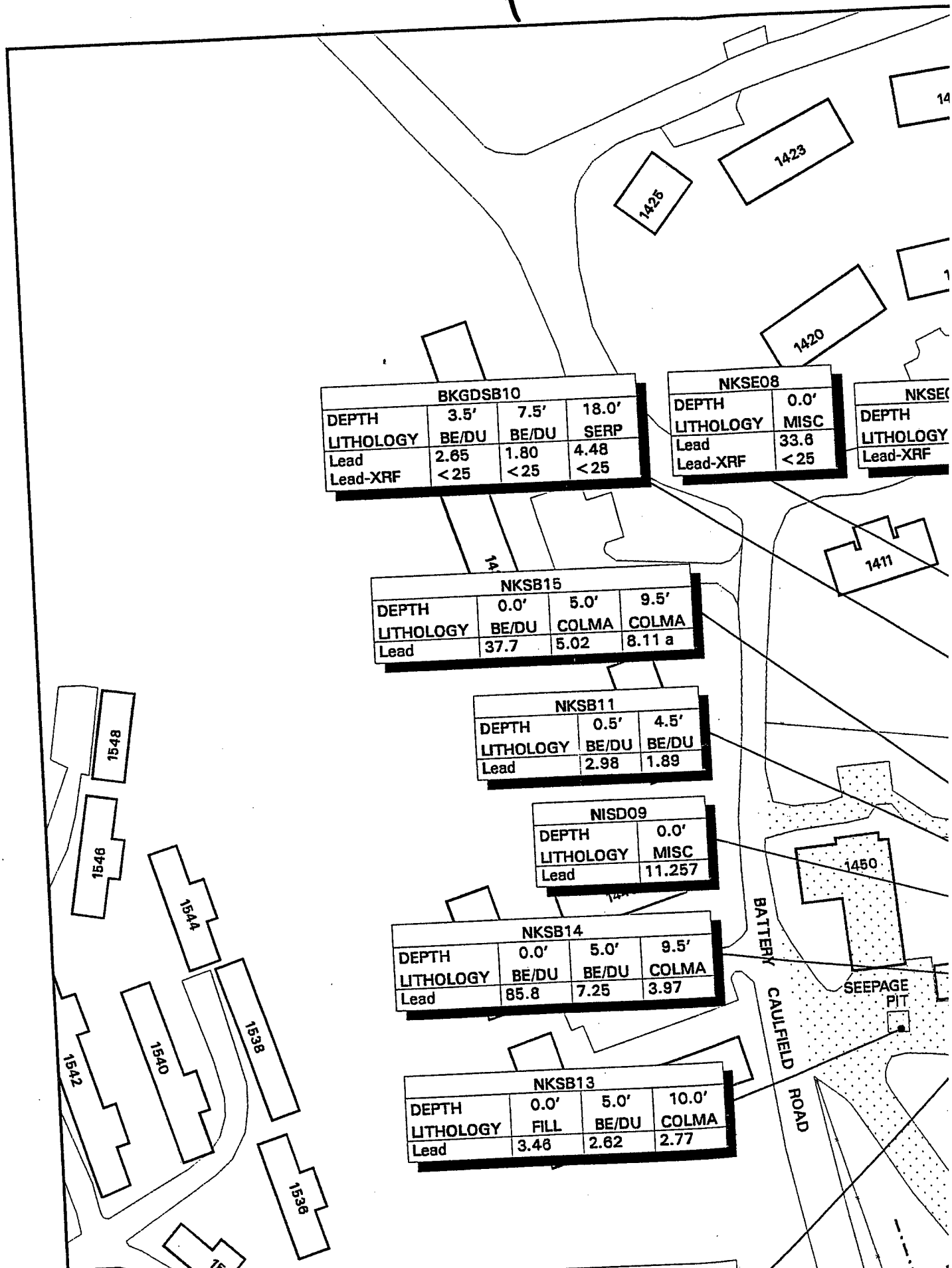
PSF26197

3

Date: January 1997

Figure 4.5-3





BKGDSB10			
DEPTH	3.5'	7.5'	18.0'
LITHOLOGY	BE/DU	BE/DU	SERP
Lead	2.65	1.80	4.48
Lead-XRF	< 25	< 25	< 25

NKSE08	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	33.6
Lead-XRF	< 25

NKSE09	
DEPTH	
LITHOLOGY	
Lead-XRF	

NKSB15			
DEPTH	0.0'	5.0'	9.5'
LITHOLOGY	BE/DU	COLMA	COLMA
Lead	37.7	5.02	8.11 a

NKSB11		
DEPTH	0.5'	4.5'
LITHOLOGY	BE/DU	BE/DU
Lead	2.98	1.89

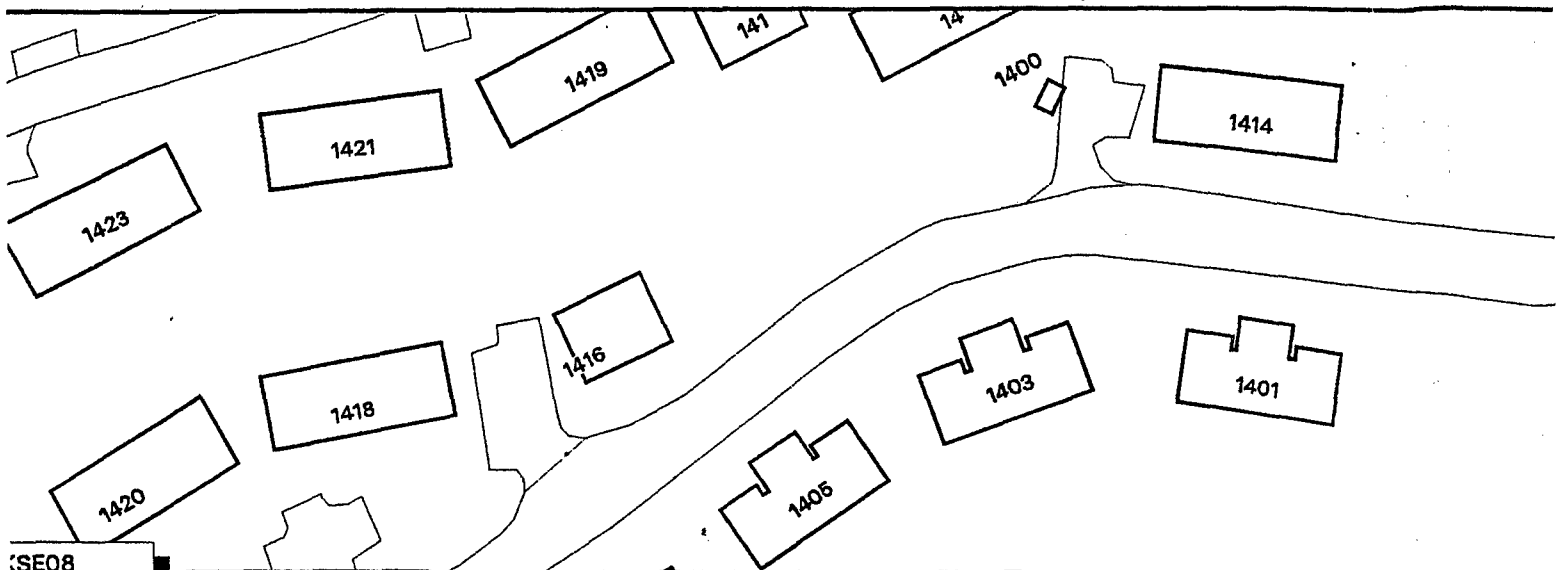
NKSE09	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	11.257

NKSB14			
DEPTH	0.0'	5.0'	9.5'
LITHOLOGY	BE/DU	BE/DU	COLMA
Lead	85.8	7.25	3.97

NKSB13			
DEPTH	0.0'	5.0'	10.0'
LITHOLOGY	FILL	BE/DU	COLMA
Lead	3.46	2.62	2.77



2



NKSE08	
DEPTH	0.0'
LITHOLOGY	MISC
Lead-XRF	33.6
	< 25

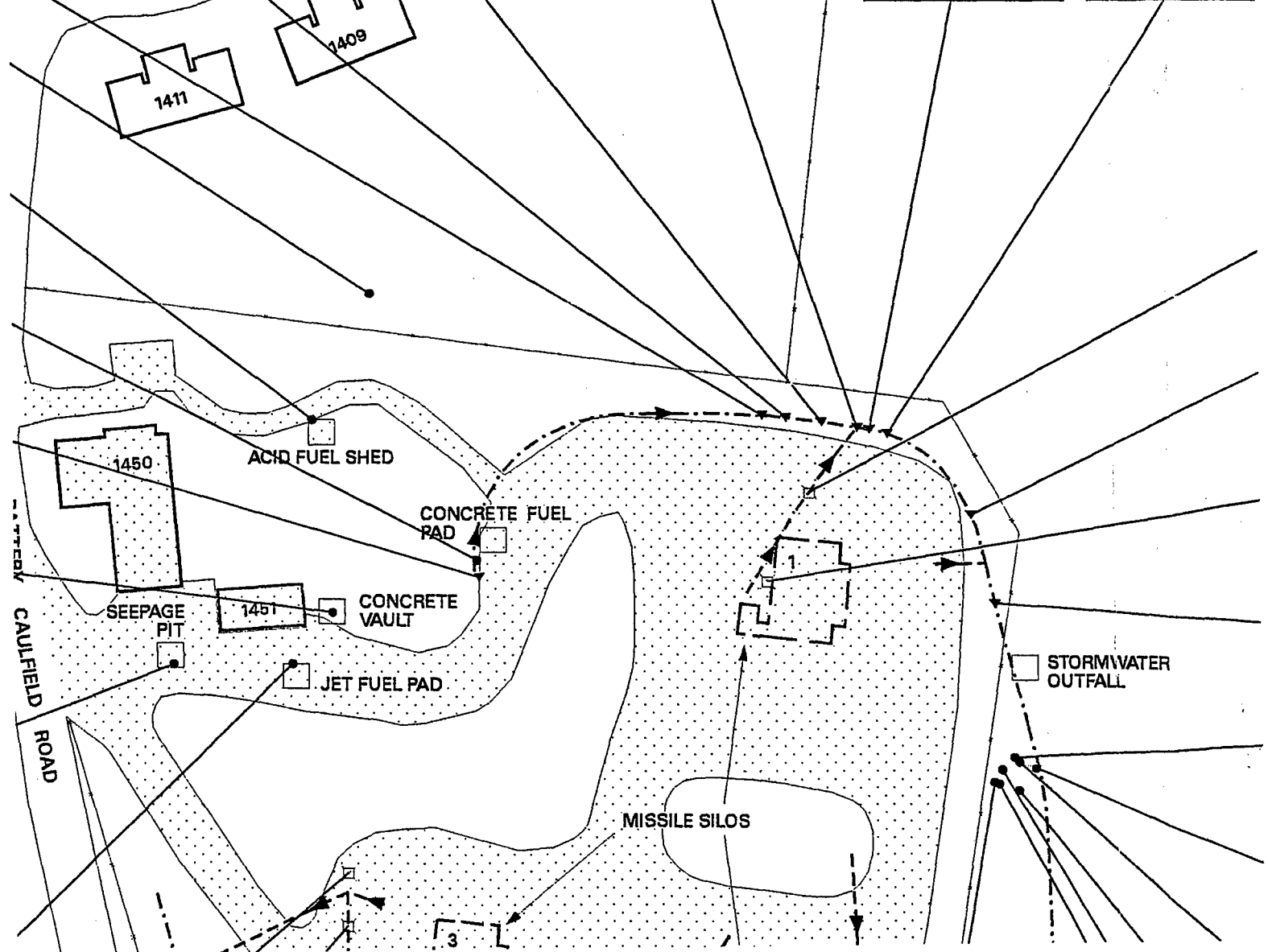
NKSE07	
DEPTH	0.0'
LITHOLOGY	MISC
Lead-XRF	< 25

NKSE06	
DEPTH	0.0'
LITHOLOGY	MISC
Lead-XRF	< 25

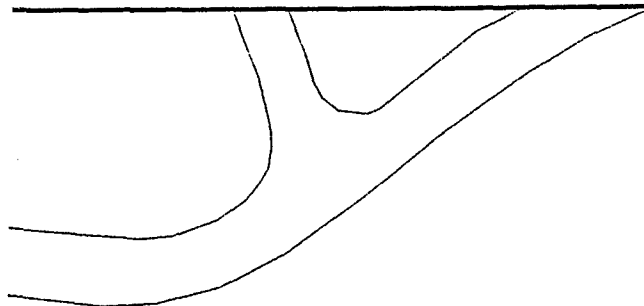
NISD04	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	2142.990

NKSE01	
DEPTH	0.0'
LITHOLOGY	MISC
Lead-XRF	855

NKSE02	
DEPTH	0.0'
LITHOLOGY	MISC
Lead-XRF	238







**EXPLANATION**

- ⊙ MONITORING WELL WITH SOIL SAMPLES
- SOIL BORING
- ▼ SEDIMENT SAMPLE FROM DRAINAGE DITCH
- SEDIMENT SAMPLE FROM A PAVED SURFACE
- ➔--- DRAINAGE DITCH WITH FLOW DIRECTION
- ➔--- STORM DRAIN WITH FLOW DIRECTION
- ▤ SURFACES COVERED BY PAVEMENT OR BUILDINGS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .  
 2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

SE02	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	238

NISD08	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	250.760

NKSE03	
DEPTH	0.0'
LITHOLOGY	MISC
Lead-XRF	46.8

NISD07	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	664.247

NKSE05	
DEPTH	0.0'
LITHOLOGY	MISC
Lead-XRF	315

NKSB21		
DEPTH	0.0'	1.7'
LITHOLOGY	FILL	BE/DU
Lead-XRF	924	<25

NKSB25		
DEPTH	0.0'	2.0'
LITHOLOGY	FILL	BE/DU
Lead-XRF	<25	<25

TER



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FIGURE GENERATED BY MONTGOMERY WATSON FOR USACE

NKS14			
DEPTH	0.0'	5.0'	9.5'
LITHOLOGY	BE/DU	BE/DU	COLMA
Lead	85.8	7.25	3.97

NKS13			
DEPTH	0.0'	5.0'	10.0'
LITHOLOGY	FILL	BE/DU	COLMA
Lead	3.48	2.62	2.77

NKS12			
DEPTH	1.0'	4.5'	9.0'
LITHOLOGY	BE/DU	BE/DU	BE/DU
Lead	60.7	3.22	2.29

NIS10	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	54.564

NIS11	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	53.881

NKS02	
DEPTH	0.0'
LITHOLOGY	FILL
Lead	170.000 a

BATTERY CAULFIELD ROAD

SEEPAGE PIT

STORMWATER OUTFALL

1822

1823

1820

4







NISD07	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	664.247

NKSE05	
DEPTH	0.0'
LITHOLOGY	MISC
Lead-XRF	315

NKSB21		
DEPTH	0.0'	1.7'
LITHOLOGY	FILL	BE/DU
Lead-XRF	924	<25

NKSB25		
DEPTH	0.0'	2.0'
LITHOLOGY	FILL	BE/DU
Lead-XRF	<25	<25

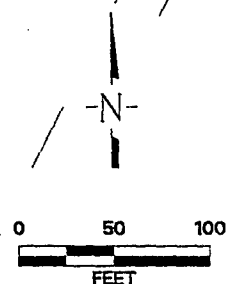
NKSB20		
DEPTH	0.0'	1.7'
LITHOLOGY	FILL	BE/DU
Lead-XRF	1200	<25

NKSB26		
DEPTH	0.0'	2.0'
LITHOLOGY	FILL	BE/DU
Lead-XRF	64.2	<25

NKSB19		
DEPTH	0.0'	1.7'
LITHOLOGY	FILL	BE/DU
Lead-XRF	827	<25

NKSB27		
DEPTH	0.0'	2.0'
LITHOLOGY	FILL	BE/DU
Lead-XRF	172	<25

IKSB01	
0.0'	3.0'
FILL	FILL
70.000 a	51.000 a



**DAMES & MOORE**

**NIKE FACILITY  
CONCENTRATIONS OF LEAD IN SOIL**

PSF26205

Date: January 1997

Figure 4.5-4

6



BKGDSB10			
DEPTH	3.5'	7.5'	18.0'
LITHOLOGY	BE/DU	BE/DU	SERP
Manganese	123	91.5	594

NKSBB11		
DEPTH	0.5'	4.5
LITHOLOGY	BE/DU	BE/D
Manganese	191	108

NKSBB15			
DEPTH	0.0'	5.0'	9.5'
LITHOLOGY	BE/DU	COLMA	COLMA
Manganese	89.3	382	5410 a

NKSBB14			
DEPTH	0.0'	5.0'	9.5'
LITHOLOGY	BE/DU	BE/DU	COLMA
Manganese	158	138	589

NKSBB13			
DEPTH	0.0'	5.0'	10.0'
LITHOLOGY	FILL	BE/DU	COLMA
Manganese	159	110	134

NKSBB12			
DEPTH	1.0'	4.5'	9.0'
LITHOLOGY	BE/DU	BE/DU	BE/DU
Manganese	185	156	85.9

NISD10	
DEPTH	0.0'
LITHOLOGY	MISC
Manganese	522.442

NISD11	
DEPTH	0.0'
LITHOLOGY	MISC
Manganese	487.422

NKSBB02		
DEPTH	0.0'	
LITHOLOGY	FILL	
Manganese	308.000 f	155

BATTERY CAULFIELD ROAD

ACID FUEL SHED

CONCRETE FUEL PAD

SEEPAGE PIT

CONCRETE VAULT

JET FUEL PAD

MISSILE SILOS

STORMWATER OUTFALL



NKS011		
TH	0.5'	4.5'
LITHOLOGY	BE/DU	BE/DU
Manganese	191	108

NISD09	
DEPTH	0.0'
LITHOLOGY	MISC
Manganese	244.087

NISD04	
DEPTH	0.0'
LITHOLOGY	MISC
Manganese	573.492

NISD08	
DEPTH	0.0'
LITHOLOGY	MISC
Manganese	483.389

NISD07		
DEPTH	0.0'	
LITHOLOGY	MISC	
Manganese	482.708	

NKS001		
DEPTH	0.0'	3.0'
LITHOLOGY	FILL	FILL
Manganese	381.000	254.000 f

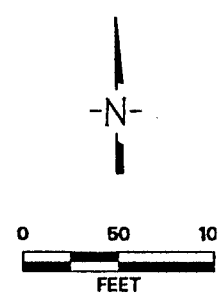
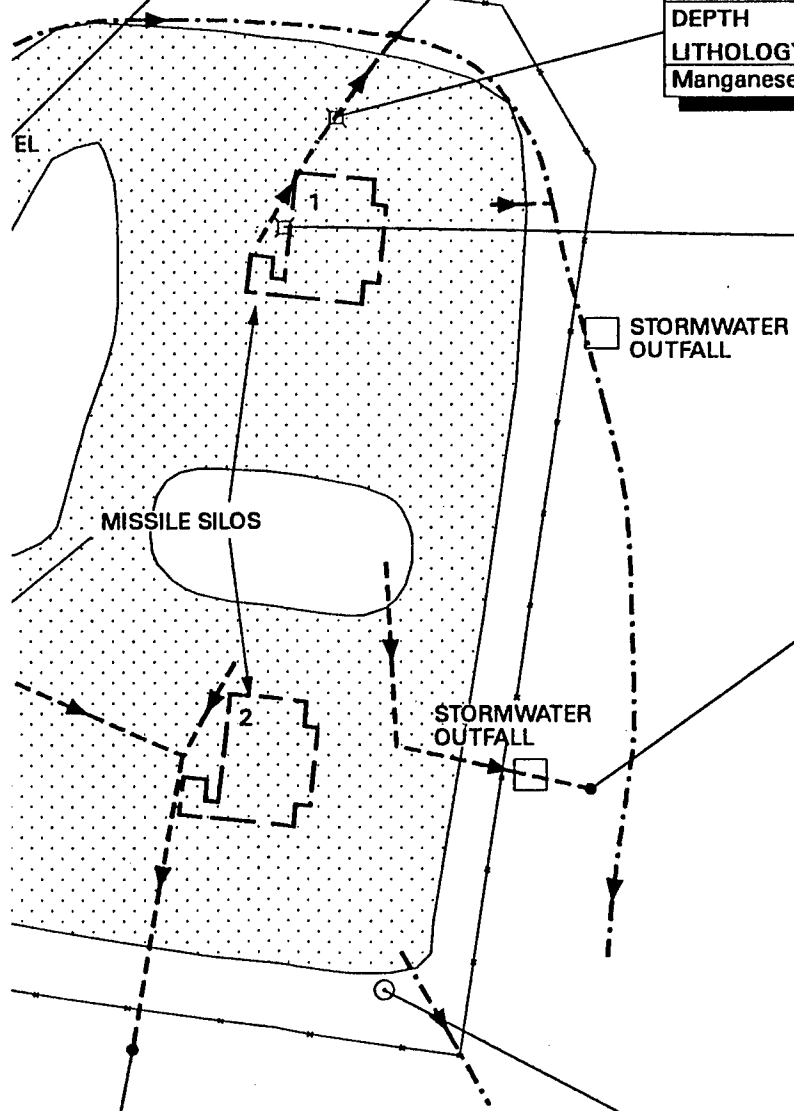
NKS002		
DEPTH	0.0'	2.0'
LITHOLOGY	FILL	FILL
Manganese	308.000 f	155.000

NKGW01		
DEPTH	1.0'	10.5'
LITHOLOGY	FILL	FILL
Manganese	328.000	137.000

**EXPLANATION**

- ⊙ MONITORING WELL WITH 5 SAMPLES
- SOIL BORING
- ▼ SEDIMENT SAMPLE FROM DITCH
- ⊠ SEDIMENT SAMPLE FROM SURFACE
- - -> DRAINAGE DITCH WITH FLOW
- - -> STORM DRAIN WITH FLOW
- [Pattern Box] SURFACES COVERED BY PAVEMENT OR BUILDINGS

**NOTES:** 1. ALL CONCENTRATIONS REPORTED IN PPM  
2. DATA FOOTNOTE AND LITHOLOGY ARE INCLUDED AT THE END OF SECTION.



**DAMES & MOORE**

**NIKE FACILITY  
CONCENTRATIONS OF MANGANESE**

PSF26201

Date: January 1997

Fig.



**EXPLANATION**

- ⊙ MONITORING WELL WITH SOIL SAMPLES
- SOIL BORING
- ▼ SEDIMENT SAMPLE FROM DRAINAGE DITCH
- ⊠ SEDIMENT SAMPLE FROM A PAVED SURFACE
- ▶ DRAINAGE DITCH WITH FLOW DIRECTION
- ▶ STORM DRAIN WITH FLOW DIRECTION
- ▤ SURFACES COVERED BY PAVEMENT OR BUILDINGS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .

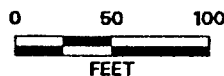
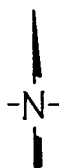
2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

D04	
0.0'	
MISC	
573.492	

D08	
0.0'	
MISC	
463.369	

NISD07		
DEPTH	0.0'	
LITHOLOGY	MISC	
Manganese	482.708	

NKSBO1		
DEPTH	0.0'	3.0'
LITHOLOGY	FILL	FILL
Manganese	381.000	254.000 f



# DAMES & MOORE

## NIKE FACILITY CONCENTRATIONS OF MANGANESE IN SOIL

PSF26201

Date: January 1997

Figure 4.5-5

.5'
LL
000



NKSBI	
DEPTH	0.5'
LITHOLOGY	BE/DI
Mercury	<0.05%

NKSB14			
DEPTH	0.0'	5.0'	9.5'
LITHOLOGY	BE/DU	BE/DU	COLMA
Mercury	<0.0590	<0.0590	<0.0590

NKS13			
DEPTH	0.0'	5.0'	10.0'
LITHOLOGY	FILL	BE/DU	COLMA
Mercury	<0.0590	<0.0590	<0.0590

NKS12			
DEPTH	1.0'	4.5'	9.0'
LITHOLOGY	BE/DU	BE/DU	BE/DU
Mercury	0.131	<0.0590	<0.0590

NISD10	
DEPTH	0.0'
LITHOLOGY	MISC
Mercury	0.092

NISD11	
DEPTH	0.0'
LITHOLOGY	MISC
Mercury	0.058

NKS02	
DEPTH	0.0'
LITHOLOGY	FILL
Mercury	0.045

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FIGURE GENERATED BY MONTGOMERY WATSON FOR USACE



1407

2

NKS011		
DEPTH	0.5'	4.5'
LITHOLOGY	BE/DU	BE/DU
Mercury	<0.0590	<0.0590

NIS009	
DEPTH	0.0'
LITHOLOGY	MISC
Mercury	<0.050

NIS004	
DEPTH	0.0'
LITHOLOGY	MISC
Mercury	0.100

NIS008	
DEPTH	0.0'
LITHOLOGY	MISC
Mercury	0.129

NIS007	
DEPTH	0.0'
LITHOLOGY	MISC
Mercury	0.103

NKS001		
DEPTH	0.0'	3.0'
LITHOLOGY	FILL	FILL
Mercury	0.079	<0.027

NKS002		
DEPTH	0.0'	2.0'
LITHOLOGY	FILL	FILL
Mercury	0.045	<0.027

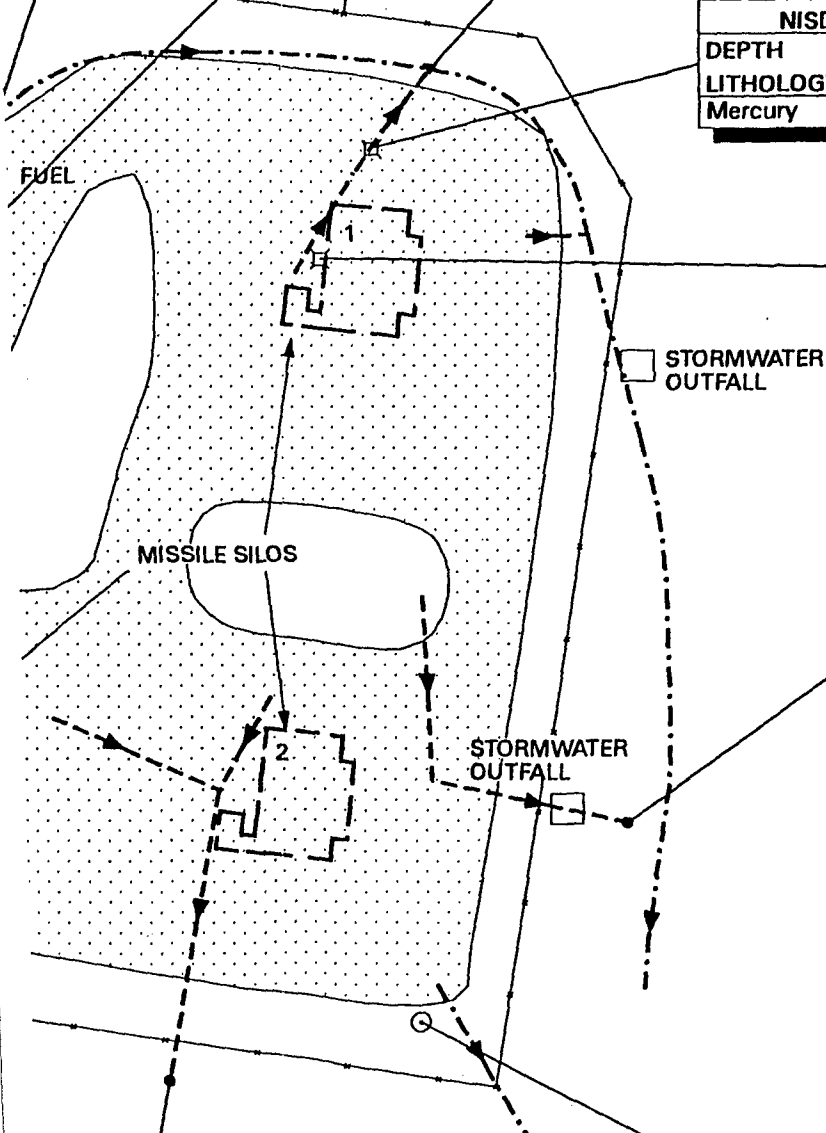
NKGW01		
DEPTH	1.0'	10.5'
LITHOLOGY	FILL	FILL
Mercury	0.076	<0.027

## EXPLANATION

- MONITORING WELL V SAMPLES
- SOIL BORING
- ▼ SEDIMENT SAMPLE FROM DITCH
- SEDIMENT SAMPLE FROM SURFACE
- > DRAINAGE DITCH WITH
- > STORM DRAIN WITH F
- ▨ SURFACES COVERED BY PAVEMENT OR BUILDING

NOTES: 1. ALL CONCENTRATIONS IN

2. DATA FOOTNOTE AND LITHOLOGY ARE INCLUDED AT THE END OF SECTION.



# NIKE FACILITY CONCENTRATIONS OF MERCURY

PSF26199

Date: January 1997

Figure



2  
10

NISD04	
DEPTH	0.0'
LITHOLOGY	MISC
Mercury	0.100

NISD08	
DEPTH	0.0'
LITHOLOGY	MISC
Mercury	0.129

NISD07		
DEPTH	0.0'	
LITHOLOGY	MISC	
Mercury	0.103	

3M WATER  
FALL

NKSB01		
DEPTH	0.0'	3.0'
LITHOLOGY	FILL	FILL
Mercury	0.079	<0.027

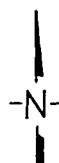
1	10.5'
L	FILL
3	<0.027

### EXPLANATION

3

- MONITORING WELL WITH SOIL SAMPLES
- SOIL BORING
- ▼ SEDIMENT SAMPLE FROM DRAINAGE DITCH
- SEDIMENT SAMPLE FROM A PAVED SURFACE
- > DRAINAGE DITCH WITH FLOW DIRECTION
- > STORM DRAIN WITH FLOW DIRECTION
- SURFACES COVERED BY PAVEMENT OR BUILDINGS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .  
2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.



0 50 100  
FEET



**DAMES & MOORE**

## NIKE FACILITY CONCENTRATIONS OF MERCURY IN SOIL

PSF26199

Date: January 1997

Figure 4.5-6



BKGDSB10			
DEPTH	3.5'	7.5'	18.0'
LITHOLOGY	BE/DU	BE/DU	SERP
Nickel	15.1	15.0	1940

NKSBB11		
DEPTH	0.5'	4.5'
LITHOLOGY	BE/DU	BE/D
Nickel	19.4	17.8

NKSBB15			
DEPTH	0.0'	5.0'	9.5'
LITHOLOGY	BE/DU	COLMA	COLMA
Nickel	18.0	51.8	641 a

NKSBB14			
DEPTH	0.0'	5.0'	9.5'
LITHOLOGY	BE/DU	BE/DU	COLMA
Nickel	23.2	21.5	31.2

NKSBB13			
DEPTH	0.0'	5.0'	10.0'
LITHOLOGY	FILL	BE/DU	COLMA
Nickel	15.7	18.9	20.6

NKSBB12			
DEPTH	1.0'	4.5'	9.0'
LITHOLOGY	BE/DU	BE/DU	BE/DU
Nickel	20.5	16.6	15.7

NISD10	
DEPTH	0.0'
LITHOLOGY	MISC
Nickel	60.905

NISD11	
DEPTH	0.0'
LITHOLOGY	MISC
Nickel	45.666

NKSBB02		
DEPTH	0.0'	2.0'
LITHOLOGY	FILL	FILL
Nickel	36.900	24.500

BATTERY CAULFIELD ROAD

ACID FUEL SHED

CONCRETE FUEL PAD

SEEPAGE PIT

CONCRETE VAULT

JET FUEL PAD

MISSILE SILOS

STORMWATER  
OUTFALL

1432

1407

1411

1433

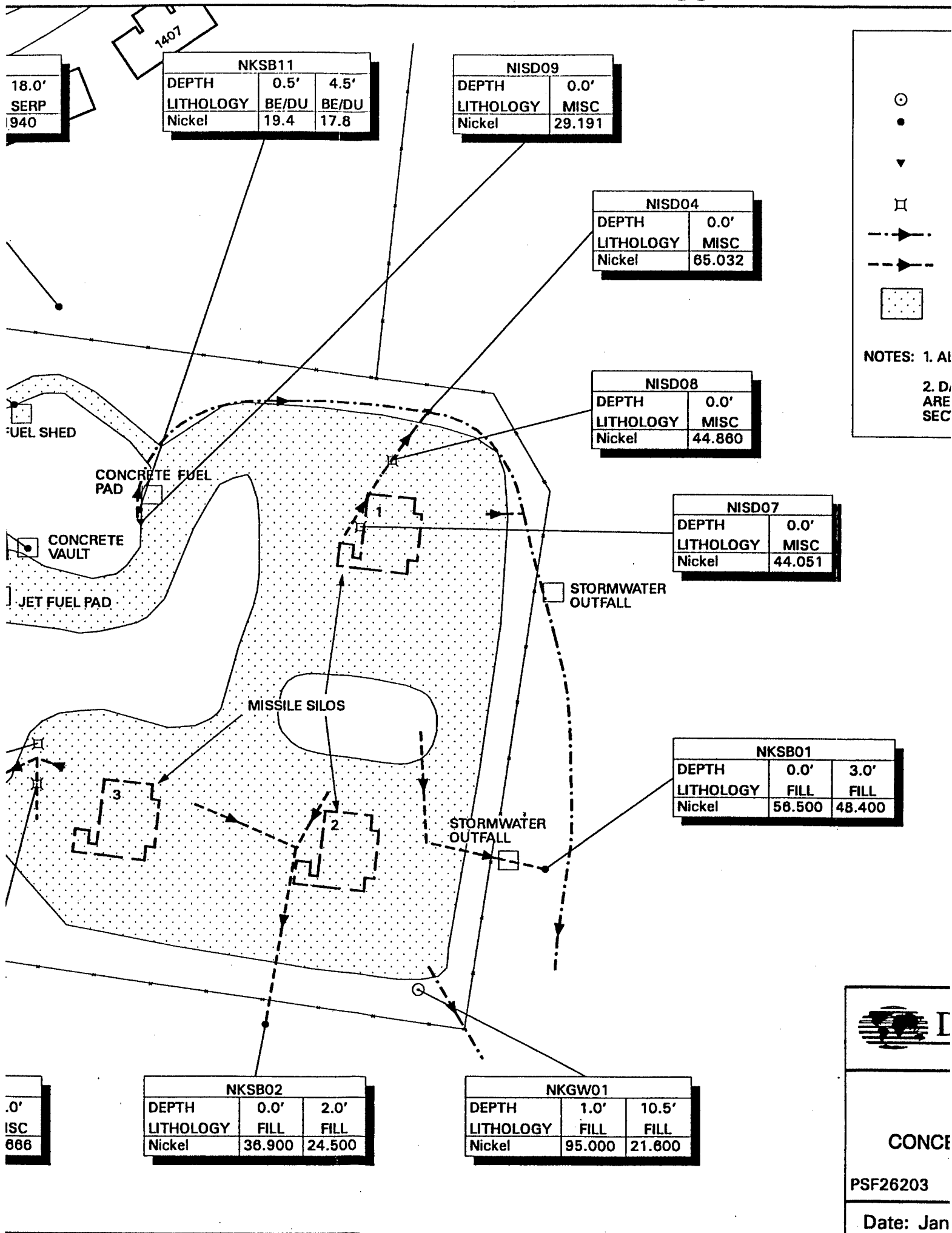
1440

1443

3

2







D09	0.0'
Y	MISC
	29.191

NISD04	
DEPTH	0.0'
LITHOLOGY	MISC
Nickel	85.032

NISD08	
DEPTH	0.0'
LITHOLOGY	MISC
Nickel	44.860

NISD07	
DEPTH	0.0'
LITHOLOGY	MISC
Nickel	44.051

NKSBO1		
DEPTH	0.0'	3.0'
LITHOLOGY	FILL	FILL
Nickel	56.500	48.400

ATER

NKGW01		
DEPTH	1.0'	10.5'
LITHOLOGY	FILL	FILL
Nickel	95.000	21.600

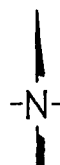
### EXPLANATION

3

- ⊙ MONITORING WELL WITH SOIL SAMPLES
- SOIL BORING
- ▼ SEDIMENT SAMPLE FROM DRAINAGE DITCH
- ⊠ SEDIMENT SAMPLE FROM A PAVED SURFACE
- ➔ DRAINAGE DITCH WITH FLOW DIRECTION
- ➔ STORM DRAIN WITH FLOW DIRECTION
- ▨ SURFACES COVERED BY PAVEMENT OR BUILDINGS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.



0 50 100  
FEET



DAMES & MOORE

## NIKE FACILITY CONCENTRATIONS OF NICKEL IN SOIL

PSF26203

Date: January 1997

Figure 4.5-7



NKSB15			
DEPTH	0.0'	5.0'	9.5'
LITHOLOGY	BE/DU	COLMA	COLMA
Zinc	86.2	39.5	54.9 a

BKGDSB10			
DEPTH	3.5'	7.5'	18.0'
LITHOLOGY	BE/DU	BE/DU	SERP
Zinc	19.6 n	16.2 n	42.6 n
Zinc-XRF	<36	<36	146

NISD07	
DEPTH	0.0'
LITHOLOGY	MISC
Zinc	594.651

NKSB11		
DEPTH	0.5'	4.5'
LITHOLOGY	BE/DU	BE/DU
Zinc	23.1	13.5

NISD09	
DEPTH	0.0'
LITHOLOGY	MISC
Zinc	31.898

NKSB14			
DEPTH	0.0'	5.0'	9.5'
LITHOLOGY	BE/DU	BE/DU	COLMA
Zinc	91.2	25.8	39.7

NKSB13			
DEPTH	0.0'	5.0'	10.0'
LITHOLOGY	FILL	BE/DU	COLMA
Zinc	17.9 m	17.1 m	15.5 m

NKSB12			
DEPTH	1.0'	4.5'	9.0'
LITHOLOGY	BE/DU	BE/DU	BE/DU
Zinc	110	21.2	38.6

NISD10	
DEPTH	0.0'
LITHOLOGY	MISC
Zinc	87.017

NISD11	
DEPTH	0.0'
LITHOLOGY	MISC
Zinc	69.806

NKSB02		
DEPTH	0.0'	2.0'
LITHOLOGY	FILL	FILL
Zinc	186.000	63.700

BATTERY CAULFIELD ROAD

ACID FUEL SHED

CONCRETE FUEL PAD

SEEPAGE PIT

CONCRETE VAULT

JET FUEL PAD

MISSILE SILOS

STORMWATER OUTFALL



2

## EXPLANATION



MONITORING WELL WITH SOIL SAMPLES



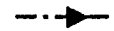
SOIL BORING



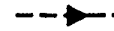
SEDIMENT SAMPLE FROM DRAINAGE DITCH



SEDIMENT SAMPLE FROM A PAVED SURFACE



DRAINAGE DITCH WITH FLOW DIRECTION



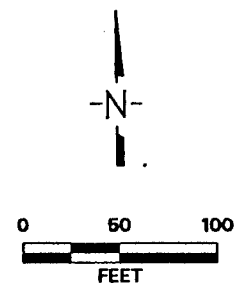
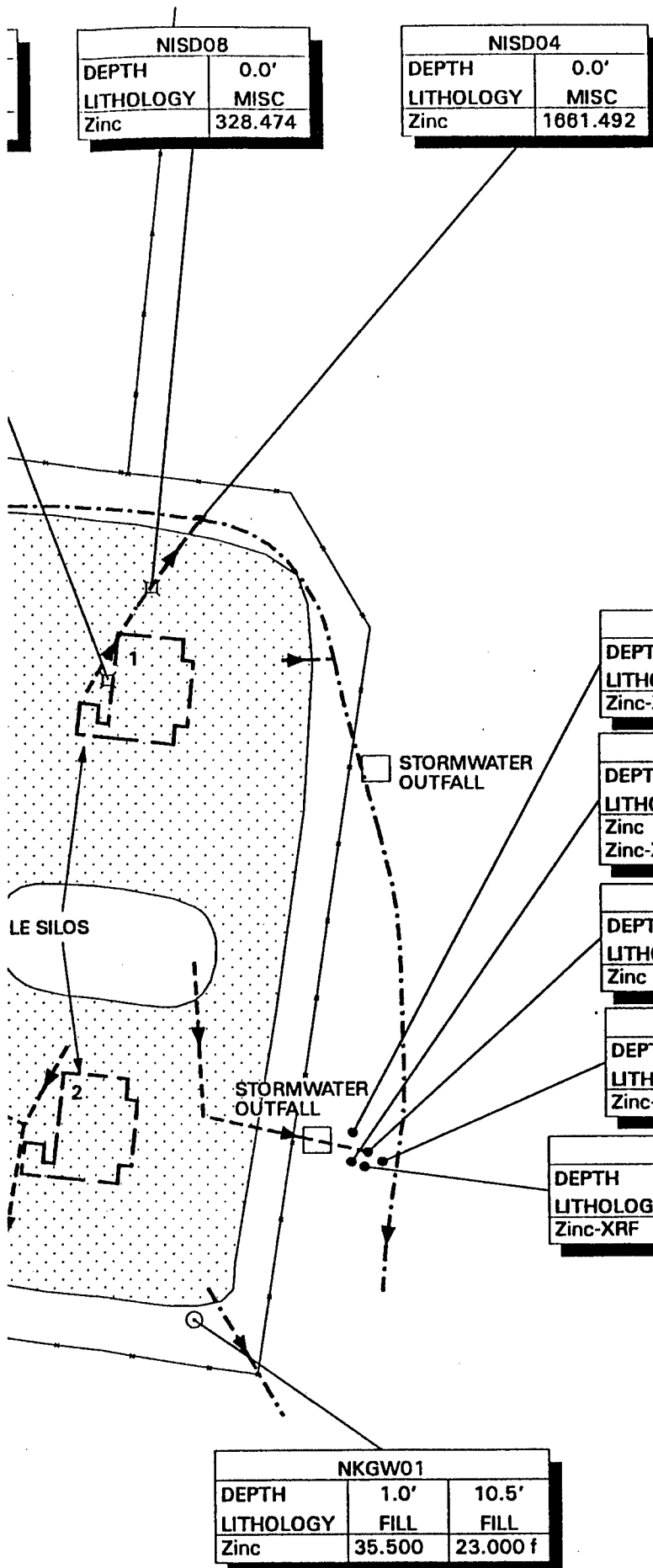
STORM DRAIN WITH FLOW DIRECTION



SURFACES COVERED BY PAVEMENT OR BUILDINGS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ 

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.



DAMES &amp; MOORE

NIKE FACILITY  
CONCENTRATIONS OF ZINC IN SOI


PSF26496

Date: January 1997

Figure 4.5-8



### EXPLANATION

- ⊙ MONITORING WELL WITH SOIL SAMPLES
- SOIL BORING
- ▼ SEDIMENT SAMPLE FROM DRAINAGE DITCH
- ⊠ SEDIMENT SAMPLE FROM A PAVED SURFACE
- ▶ DRAINAGE DITCH WITH FLOW DIRECTION
- - -▶ STORM DRAIN WITH FLOW DIRECTION
-  SURFACES COVERED BY PAVEMENT OR BUILDINGS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

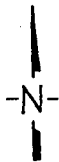
NKSBO5		
	0.0'	2.0'
LOGY	BE/DU	BE/DU
	<36	<36

NKSBO6		
	0.0'	2.0'
LOGY	BE/DU	BE/DU
	NA	26.2
	141	<36

NKSBO1		
	0.0'	3.0'
LOGY	FILL	FILL
	990.000	157.000

NKSBO4		
	0.0'	2.0'
LOGY	BE/DU	COLMA
IF	180	97.7

KSB03		
	0.0'	2.0'
BE/DU	COLMA	
90.9	<36	



**DAMES & MOORE**

## NIKE FACILITY CONCENTRATIONS OF ZINC IN SOIL

PSF26496

Date: January 1997

Figure 4.5-8



NISD09	
DEPTH	0.0'
Benzo(a)pyrene	< 1.200

NKSB11		
DEPTH	0.5'	4.5'
Benzo(a)pyrene	< 0.0625	< 0.0625

NKSB15			
DEPTH	0.0'	5.0'	9.5'
Benzo(a)pyrene	< 0.625 a	< 0.0625	< 0.0625

NKSB14			
DEPTH	0.0'	5.0'	9.5'
Benzo(a)pyrene	< 0.625 a	< 0.0625	< 0.0625

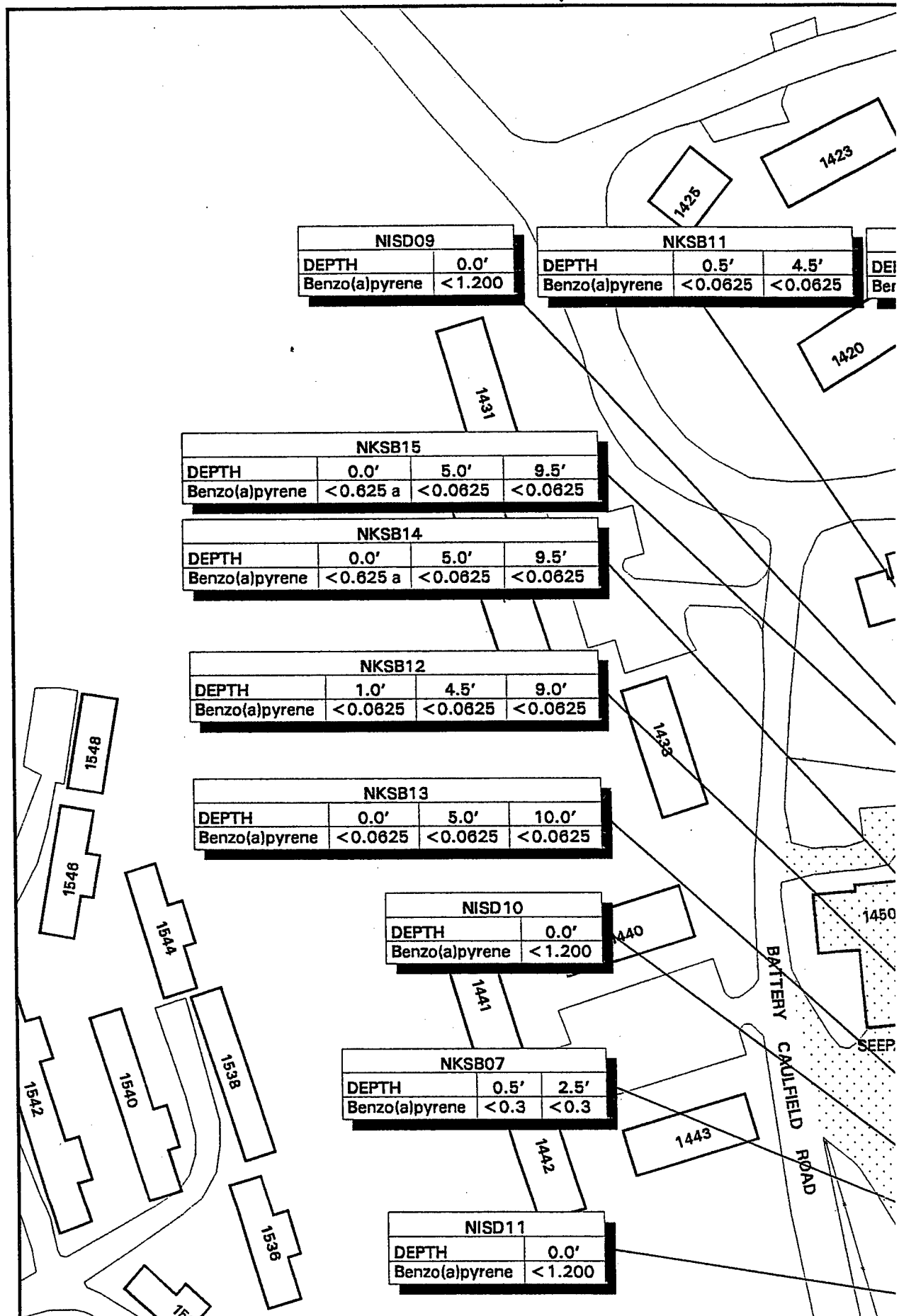
NKSB12			
DEPTH	1.0'	4.5'	9.0'
Benzo(a)pyrene	< 0.0625	< 0.0625	< 0.0625

NKSB13			
DEPTH	0.0'	5.0'	10.0'
Benzo(a)pyrene	< 0.0625	< 0.0625	< 0.0625

NISD10	
DEPTH	0.0'
Benzo(a)pyrene	< 1.200

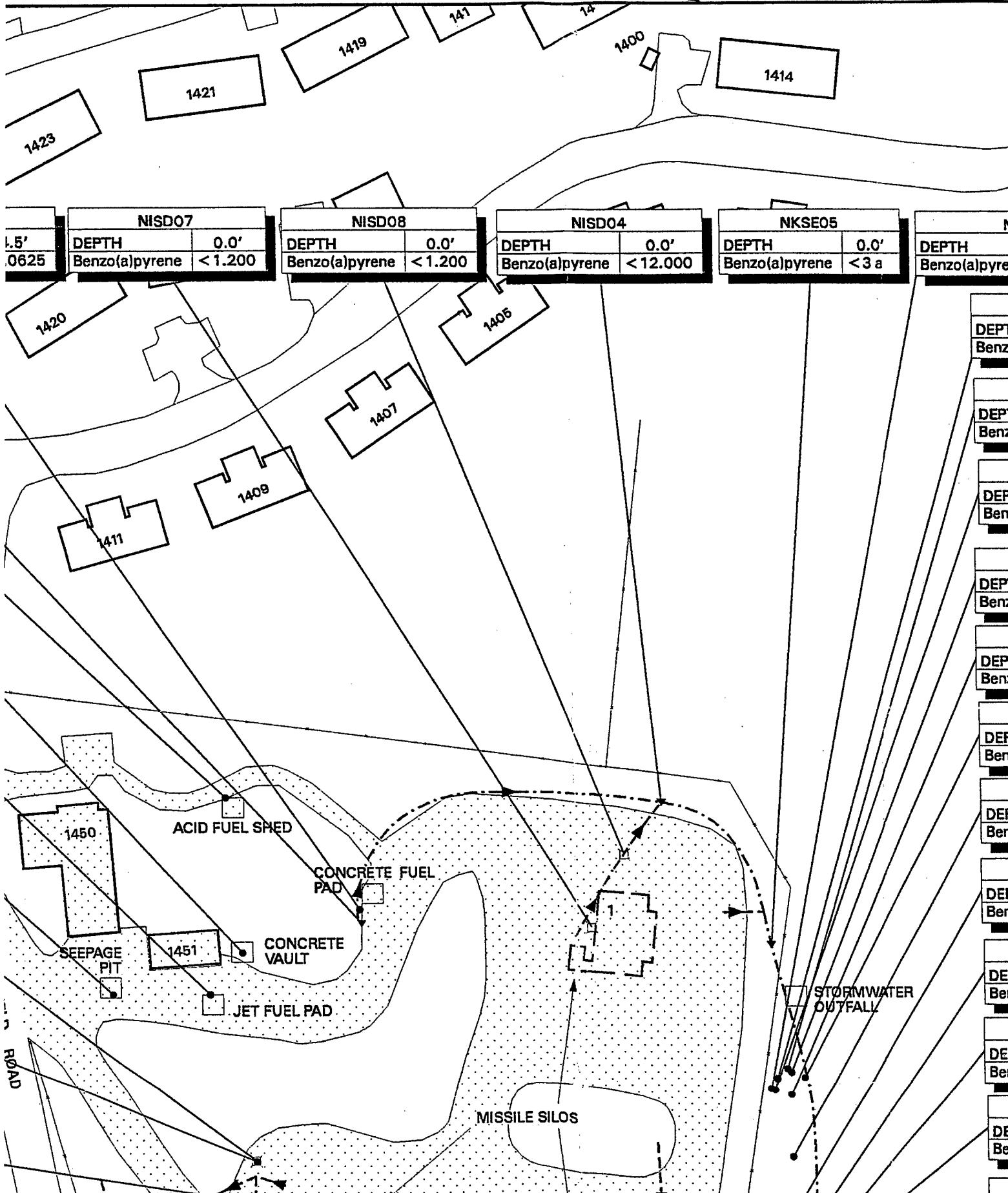
NKSB07		
DEPTH	0.5'	2.5'
Benzo(a)pyrene	< 0.3	< 0.3

NISD11	
DEPTH	0.0'
Benzo(a)pyrene	< 1.200

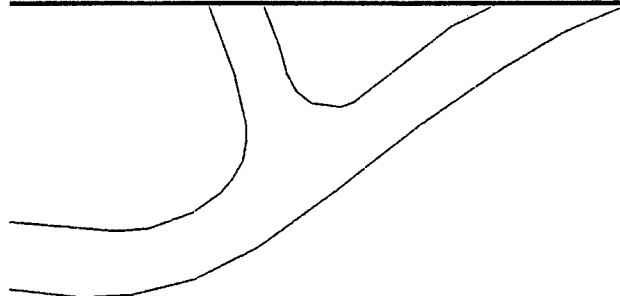




2







NKSB28		
DEPTH	0.0'	2.0'
Benzo(a)pyrene	<0.3	<0.3

NKSB19		
DEPTH	0.0'	1.7'
Benzo(a)pyrene	<30 a	<0.3

NKSB21		
DEPTH	0.0'	1.7'
Benzo(a)pyrene	<30 a	<0.3

NKSB27		
DEPTH	0.0'	2.0'
Benzo(a)pyrene	1.6	<0.3

NKSB20		
DEPTH	0.0'	1.7'
Benzo(a)pyrene	<30 a	<3 a

NKSB26		
DEPTH	0.0'	2.0'
Benzo(a)pyrene	<0.3	<0.3

NKSB25		
DEPTH	0.0'	2.0'
Benzo(a)pyrene	<0.3	<0.3

NKSB29		
DEPTH	0.0'	2.0'
Benzo(a)pyrene	<0.3	<0.3

NKSB30		
DEPTH	0.0'	2.0'
Benzo(a)pyrene	<0.3	<0.3

NKSB05		
DEPTH	0.0'	2.0'
Benzo(a)pyrene	<0.3	<0.3

NKSB06		
DEPTH	0.0'	2.0'
Benzo(a)pyrene	<0.3	<0.3

NKSB01		
--------	--	--

### EXPLANATION

- ⊙ MONITORING WELL WITH SOIL SAMPLES
- SOIL BORING
- ▼ SEDIMENT SAMPLE FROM DRAINAGE DITCH
- ⊠ SEDIMENT SAMPLE FROM A PAVED SURFACE
- ▶ DRAINAGE DITCH WITH FLOW DIRECTION
- ▶ STORM DRAIN WITH FLOW DIRECTION
- ⊠ SURFACES COVERED BY PAVEMENT OR BUILDINGS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.



NKS11		
DEPTH	0.5'	4.5'
Benzo(a)anthracene	<0.195	<0.195

DEPTH	
Benzo(a)anthracene	

NIS09	
DEPTH	0.0'
Benzo(a)anthracene	<0.041

NKS15			
DEPTH	0.0'	5.0'	9.5'
Benzo(a)anthracene	<1.95 a	<0.195	<0.195

NKS14			
DEPTH	0.0'	5.0'	9.5'
Benzo(a)anthracene	<1.95 a	<0.195	<0.195

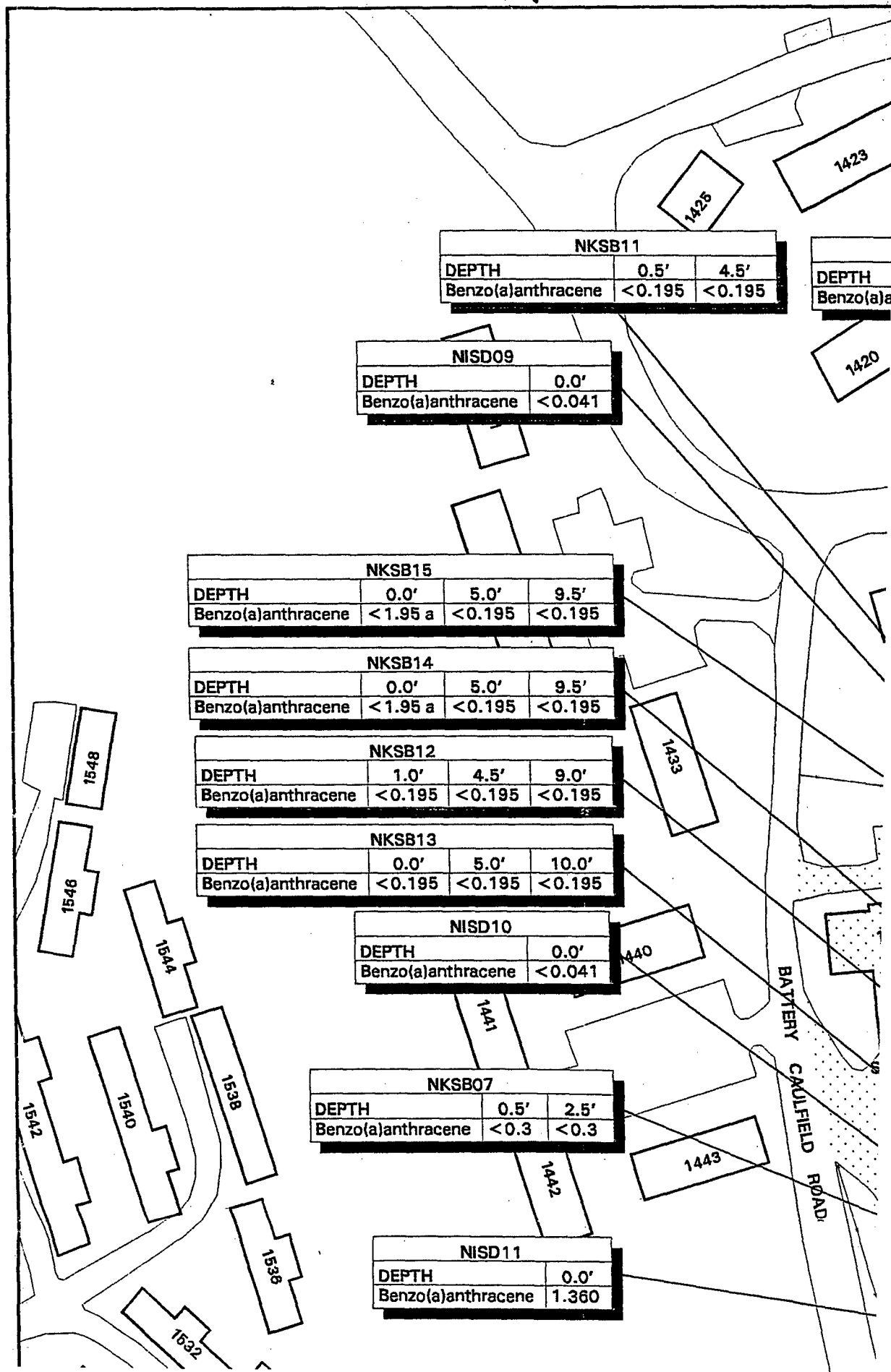
NKS12			
DEPTH	1.0'	4.5'	9.0'
Benzo(a)anthracene	<0.195	<0.195	<0.195

NKS13			
DEPTH	0.0'	5.0'	10.0'
Benzo(a)anthracene	<0.195	<0.195	<0.195

NIS10	
DEPTH	0.0'
Benzo(a)anthracene	<0.041

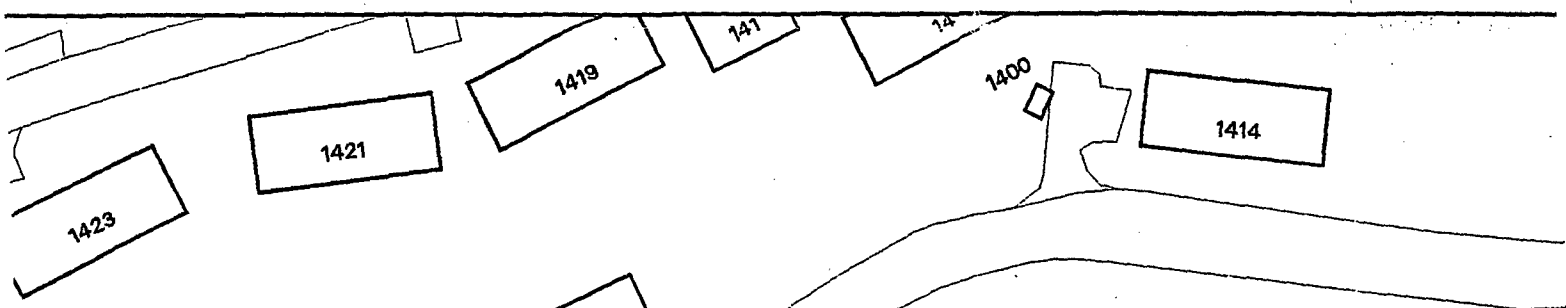
NKS07		
DEPTH	0.5'	2.5'
Benzo(a)anthracene	<0.3	<0.3

NIS11	
DEPTH	0.0'
Benzo(a)anthracene	1.360





2



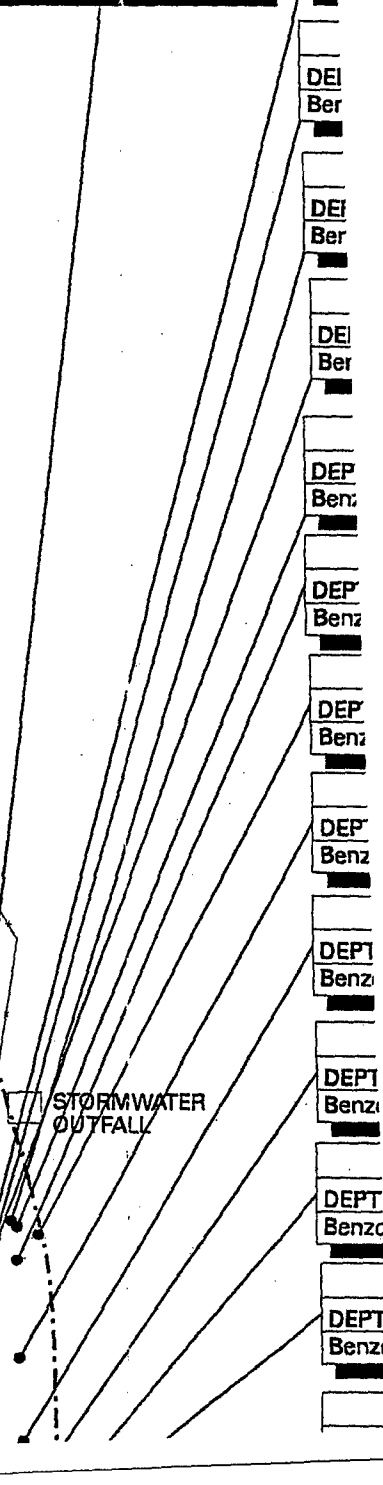
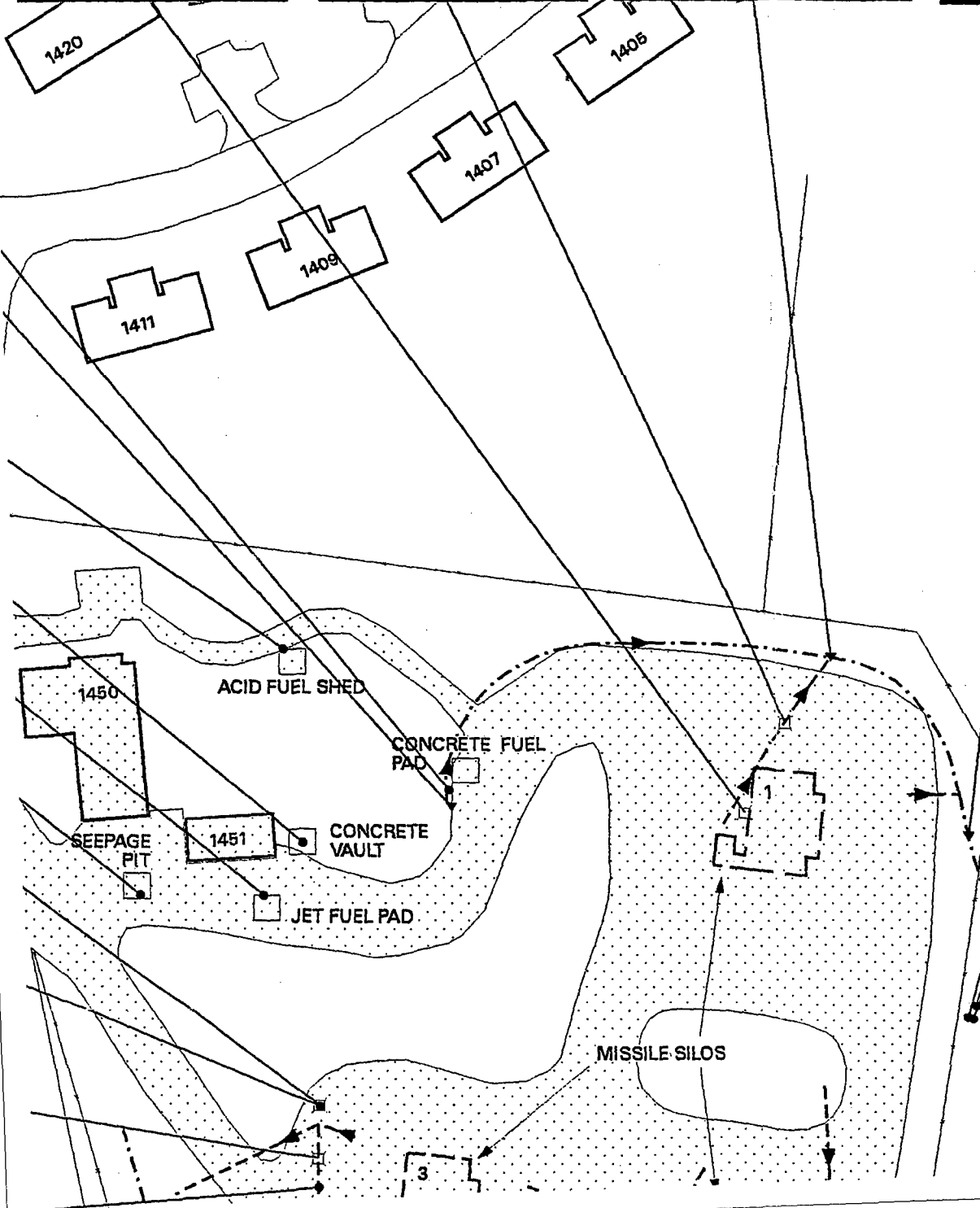
NISD07	
DEPTH	0.0'
Benzo(a)anthracene	2.510

NISD08	
DEPTH	0.0'
Benzo(a)anthracene	1.530

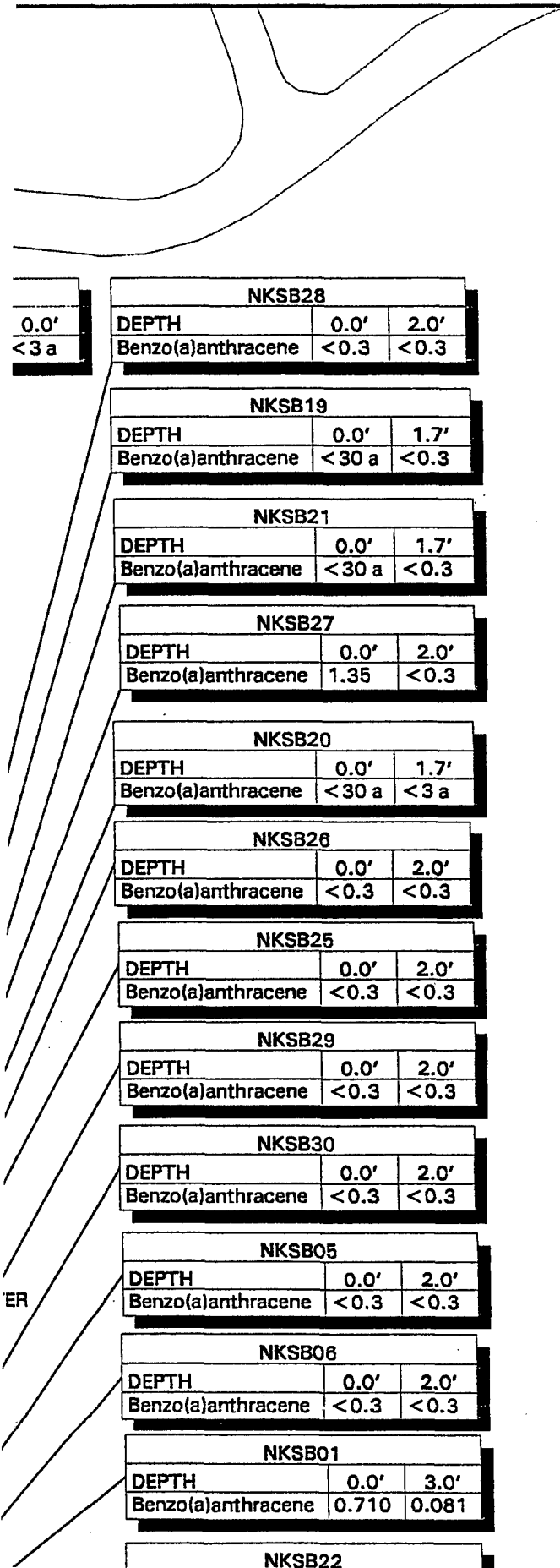
NISD04	
DEPTH	0.0'
Benzo(a)anthracene	<0.410 a

NKSE05	
DEPTH	0.0'
Benzo(a)anthracene	<3 a

- DE Ber
- DE Ber
- DE Ber
- DE Ber
- DEP Benz
- DEP Benz
- DEP Benz
- DEPT Benz
- DEPT Benz
- DEPT Benz
- DEPT Benz
- DEPT Benz







## EXPLANATION

- MONITORING WELL WITH SOIL SAMPLES
- SOIL BORING
- ▼ SEDIMENT SAMPLE FROM STORM DRAIN/DRAINAGE DITCH
- SEDIMENT SAMPLE FROM A PAVED SURFACE
- ▶--- DRAINAGE DITCH WITH FLOW DIRECTION
- ▶--- STORM DRAIN WITH FLOW DIRECTION
- SURFACES COVERED BY PAVEMENT OR BUILDINGS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.



16 Sep 96 07:49:05 Monday, base\_11x17\_v3.amd, plotfile base\_NIKEL\_S\_34.gm, PSEP

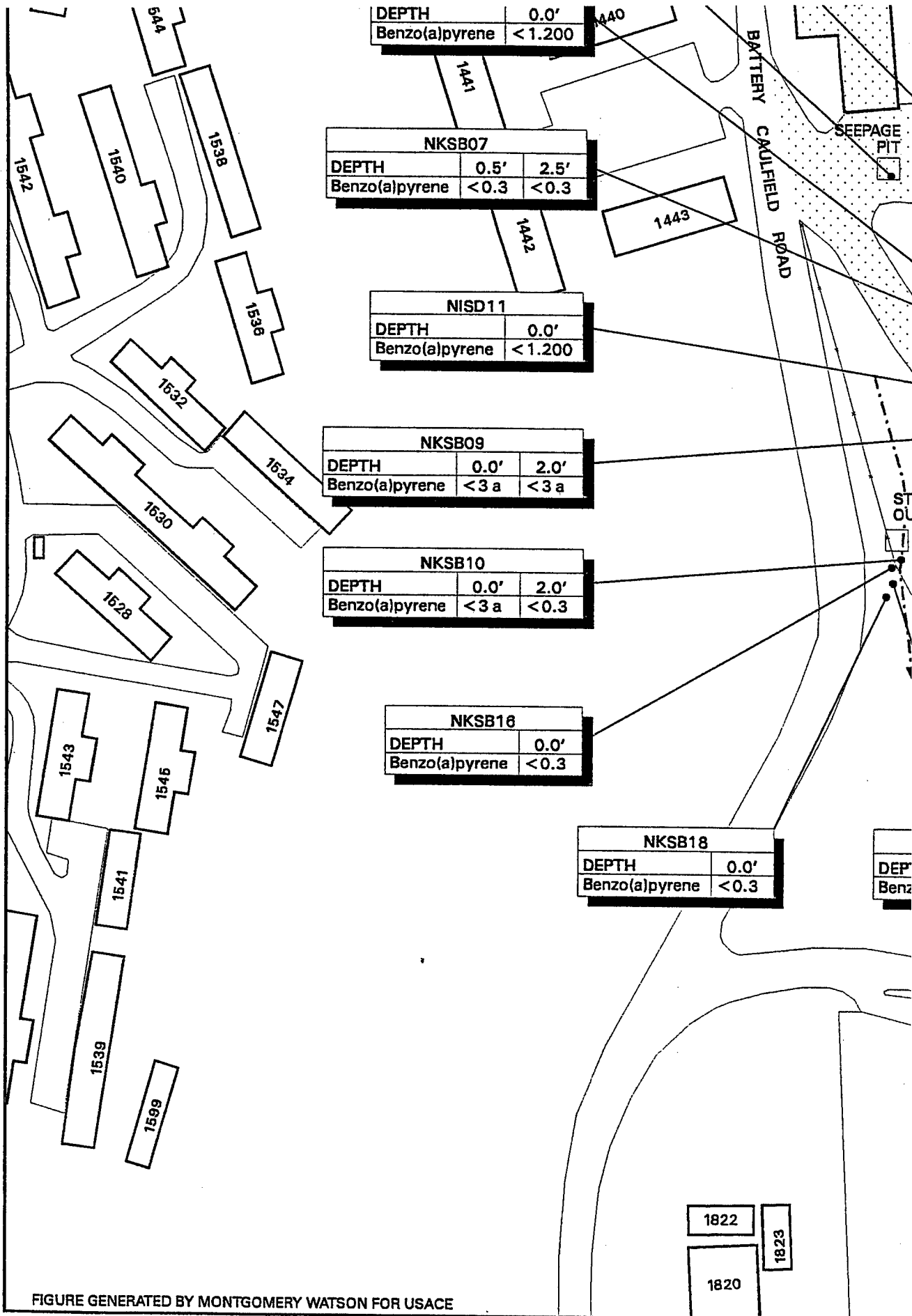


FIGURE GENERATED BY MONTGOMERY WATSON FOR USACE

4







DEPTH	0.0'	2.0'
Benzo(a)pyrene	<0.3	<0.3

#### NKSB30

DEPTH	0.0'	2.0'
Benzo(a)pyrene	<0.3	<0.3

#### NKSB05

DEPTH	0.0'	2.0'
Benzo(a)pyrene	<0.3	<0.3

#### NKSB06

DEPTH	0.0'	2.0'
Benzo(a)pyrene	<0.3	<0.3

#### NKSB01

DEPTH	0.0'	3.0'
Benzo(a)pyrene	0.840	0.130

#### NKSB22

DEPTH	0.0'	1.7'
Benzo(a)pyrene	<0.3	<0.3

#### NKSB23

DEPTH	0.0'	1.7'
Benzo(a)pyrene	<0.3	<0.3

#### NKSB24

DEPTH	0.0'	1.7'
Benzo(a)pyrene	<0.3	<0.3

#### NKSB04

DEPTH	0.0'	2.0'
Benzo(a)pyrene	<3 a	<3 a

#### NKSB03

DEPTH	0.0'	2.0'
Benzo(a)pyrene	<0.3	<0.3

-N-

0 50 100  
FEET



DAMES & MOORE

### NIKE FACILITY CONCENTRATIONS OF BENZO(A)PYRENE IN SOIL

PSF26208

Date: January 1997

Figure 4.5-9



17 Sep '96 10:22:11 Tuesday, base\_11x17\_v3.amf, profile base: NICE\_S\_33.gm, PSF

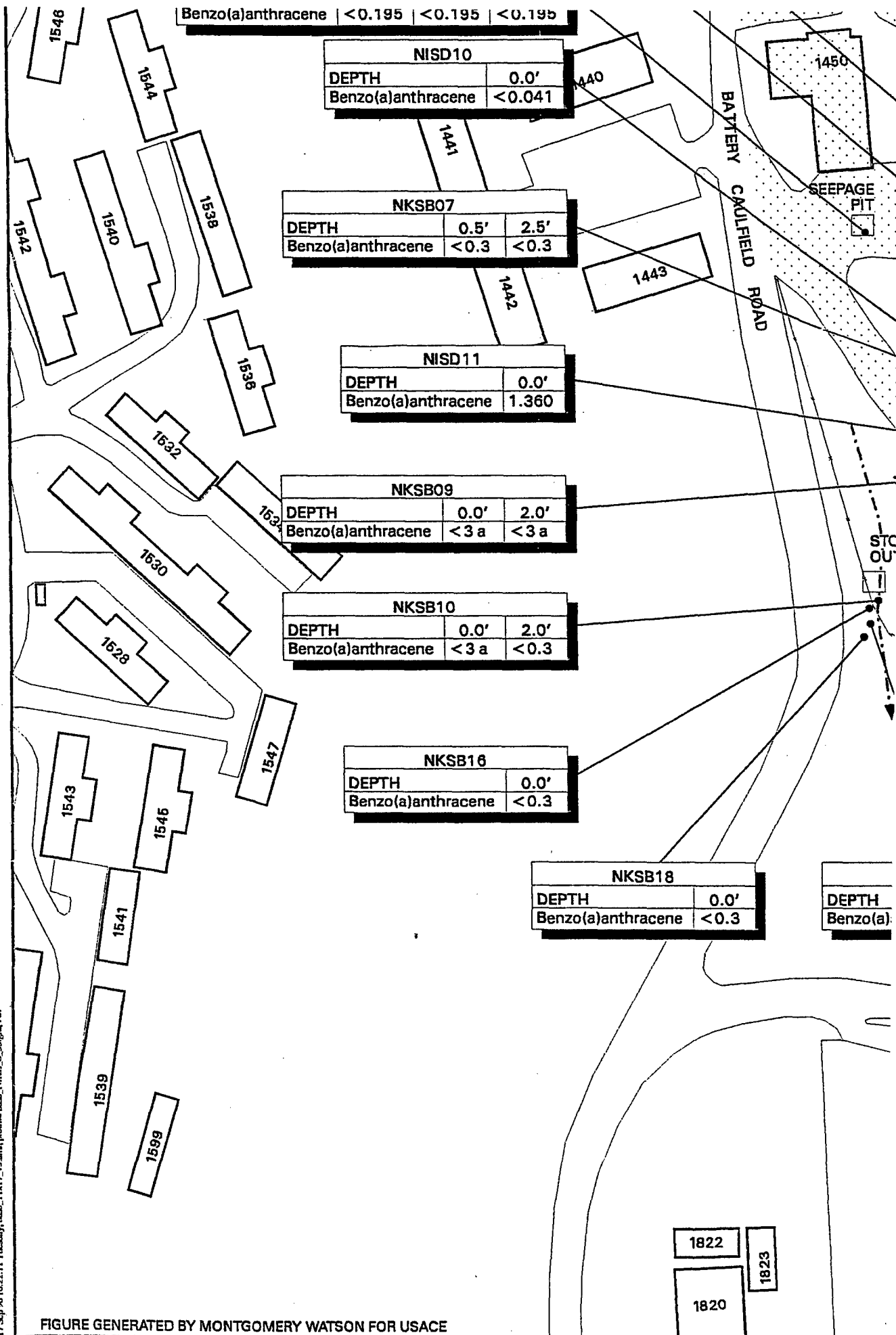


FIGURE GENERATED BY MONTGOMERY WATSON FOR USACE







Benzo(a)anthracene	<0.3	<0.3
--------------------	------	------

#### NKSB30

DEPTH	0.0'	2.0'
Benzo(a)anthracene	<0.3	<0.3

#### NKSB05

DEPTH	0.0'	2.0'
Benzo(a)anthracene	<0.3	<0.3

#### NKSB06

DEPTH	0.0'	2.0'
Benzo(a)anthracene	<0.3	<0.3

#### NKSB01

DEPTH	0.0'	3.0'
Benzo(a)anthracene	0.710	0.081

#### NKSB22

DEPTH	0.0'	1.7'
Benzo(a)anthracene	<0.3	<0.3

#### NKSB23

DEPTH	0.0'	1.7'
Benzo(a)anthracene	<0.3	<0.3

#### NKSB24

DEPTH	0.0'	1.7'
Benzo(a)anthracene	<0.3	<0.3

#### NKSB04

DEPTH	0.0'	2.0'
Benzo(a)anthracene	<3 a	<3 a

#### NKSB03

DEPTH	0.0'	2.0'
Benzo(a)anthracene	<0.3	<0.3

N

0 50 100  
FEET



DAMES & MOORE

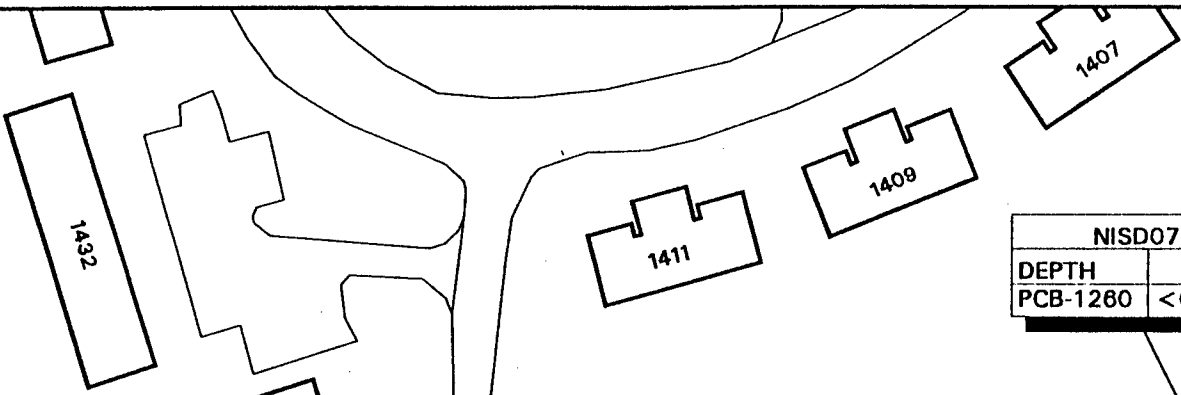
### NIKE FACILITY CONCENTRATIONS OF BENZO(A)ANTHRACENE IN SOIL

PSF26209

Date: January 1997

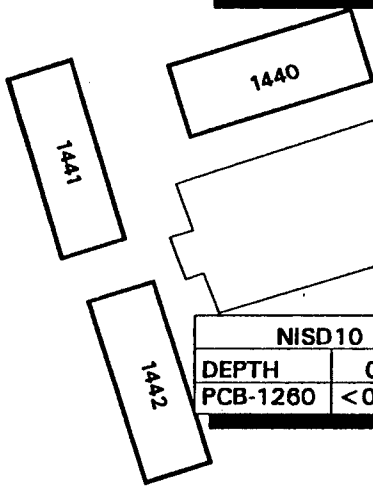
Figure 4.5-10





NISD07	
DEPTH	0.0'
PCB-1260	<0.790

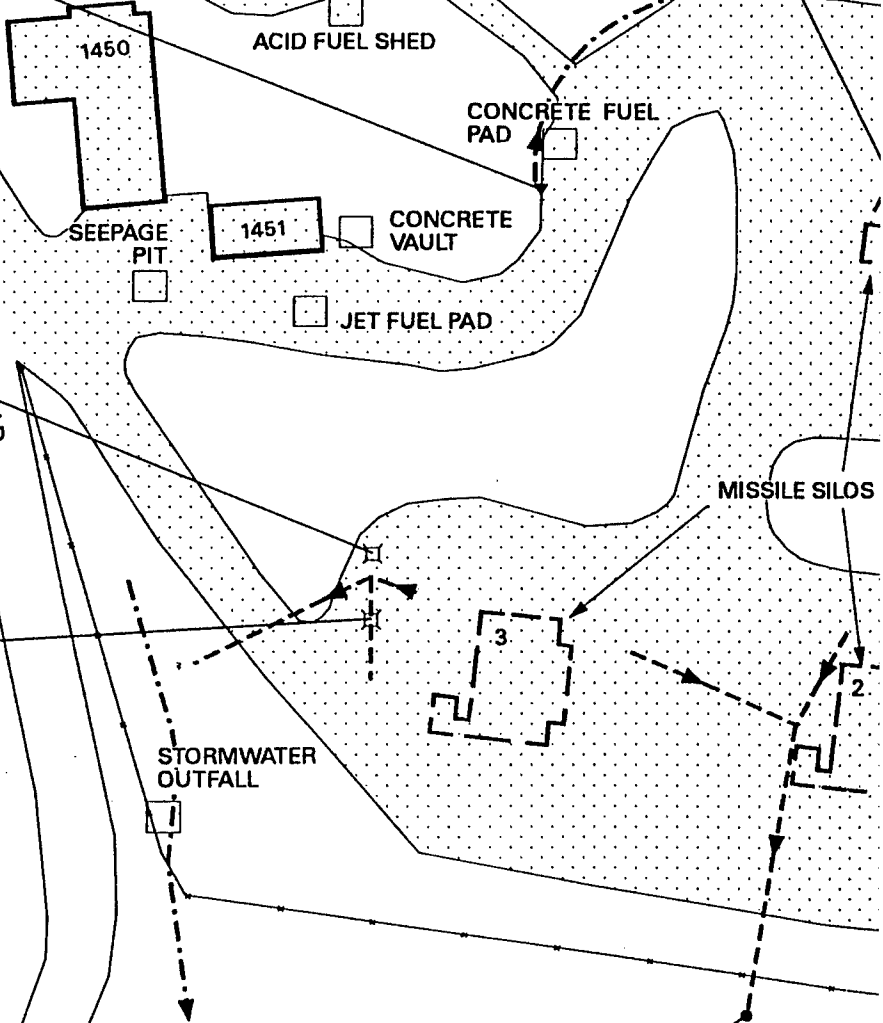
NISD09	
DEPTH	0.0'
PCB-1260	<0.790



NISD10	
DEPTH	0.0'
PCB-1260	<0.790

NISD11	
DEPTH	0.0'
PCB-1260	<0.790

BATTERY CAULFIELD ROAD



STORMWATER  
OUTFALL

NKSBO2		
DEPTH	0.0'	2.0'
PCB-1260	<0.080	<0.080

FIGURE GENERATED BY MONTGOMERY WATSON FOR USACE



07

NISD07	
DEPTH	0.0'
PCB-1260	<0.790

NISD04	
DEPTH	0.0'
PCB-1260	<7.900

NISD08	
DEPTH	0.0'
PCB-1260	<0.790

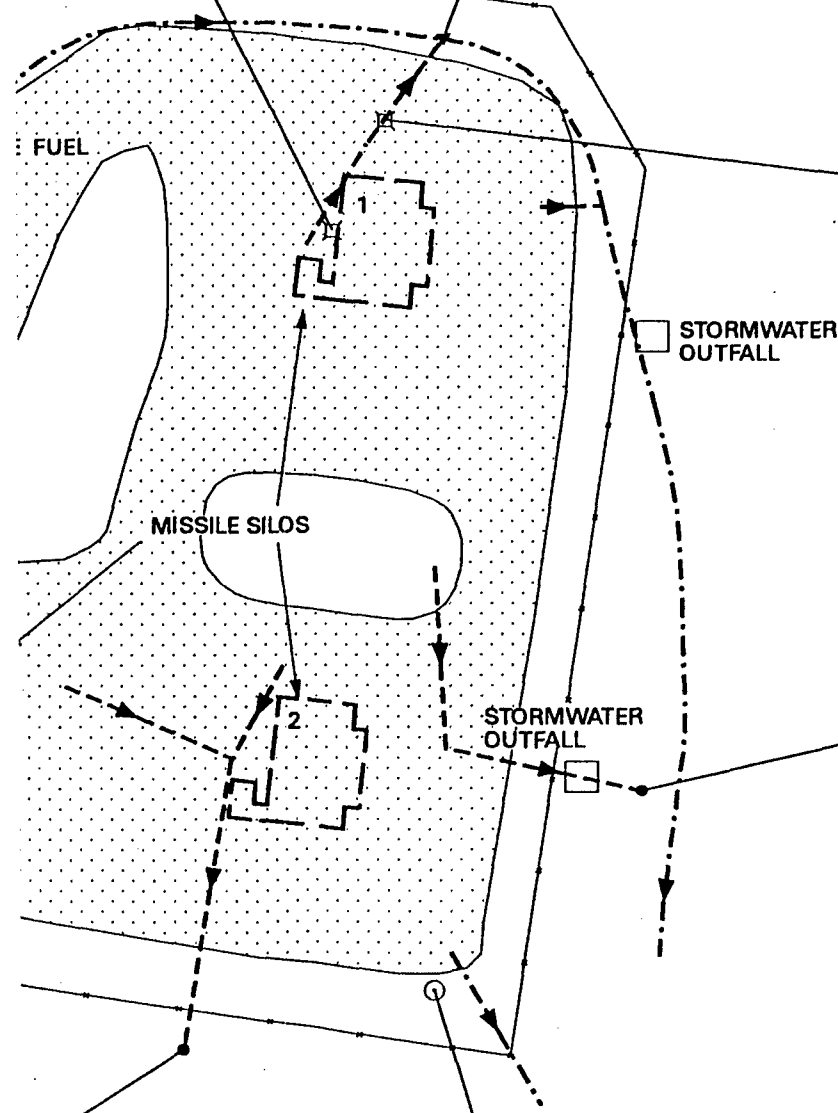
NKSB01		
DEPTH	0.0'	3.0'
PCB-1260	0.116	<0.080

NKGW01		
DEPTH	1.0'	10.5'
PCB-1260	<0.080	<0.080

# EXPLANATION

- MONITORING WELL WITH SAMPLES
- SOIL BORING
- ▼ SEDIMENT SAMPLE FROM DITCH
- SEDIMENT SAMPLE FROM SURFACE
- > DRAINAGE DITCH WITH FILL
- - -> STORM DRAIN WITH FILL
- ▨ SURFACES COVERED BY PAVEMENT OR BUILDING

NOTES: 1. ALL CONCENTRATIONS REPORTED IN THIS REPORT ARE IN MICROGRAMS PER GRAM (PPM) UNLESS OTHERWISE NOTED.  
2. DATA FOOTNOTE AND LIMIT ARE INCLUDED AT THE END OF EACH SECTION.



## NIKE FACILITY CONCENTRATIONS OF PCB-1260

PSF26210

Date: January 1997



### EXPLANATION

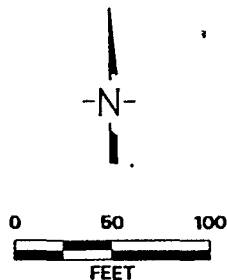
- MONITORING WELL WITH SOIL SAMPLES
- SOIL BORING
- ▼ SEDIMENT SAMPLE FROM DRAINAGE DITCH
- SEDIMENT SAMPLE FROM A PAVED SURFACE
- ▶ DRAINAGE DITCH WITH FLOW DIRECTION
- ▶ STORM DRAIN WITH FLOW DIRECTION
- ▨ SURFACES COVERED BY PAVEMENT OR BUILDINGS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .  
 2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

NISD08	
DEPTH	0.0'
PCB-1260	<0.790

WATER  
LL

NKS01		
DEPTH	0.0'	3.0'
PCB-1260	0.116	<0.080



**DAMES & MOORE**

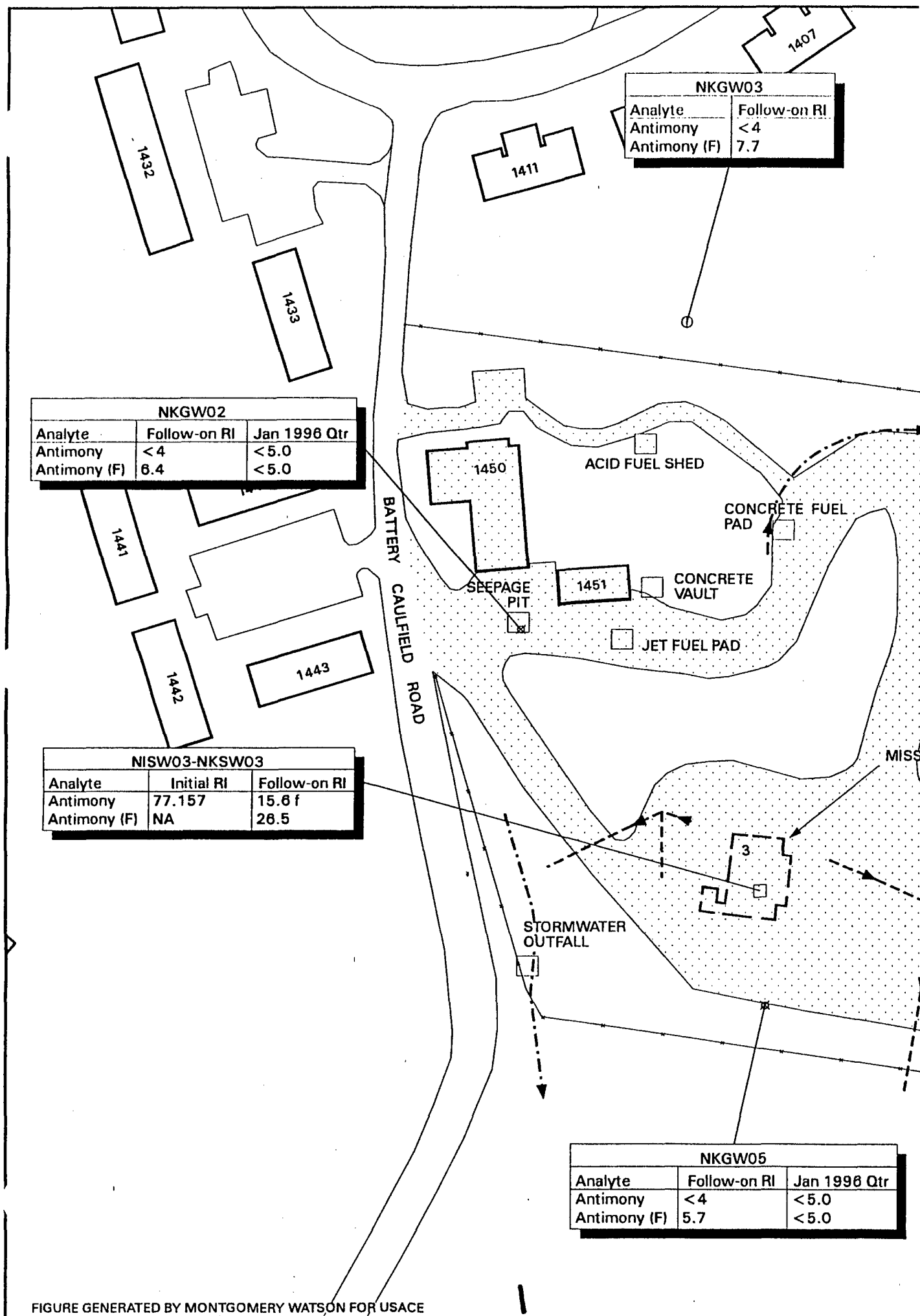
**NIKE FACILITY  
 CONCENTRATIONS OF PCB-1260 IN SOIL**

PSF26210

Date: January 1997

Figure 4.5-11














1407

on RI

NISW01-NKSW01		
Analyte	Initial RI	Follow-on RI
Antimony	287.647	126 f
Antimony (F)	NA	139 a

## EXPLANAT

-  MONITORING WELL  
 INTERMEDIATE MON  
 DEEP MONITORING V  
 SURFACE WATER SAI  
 DRAINAGE DITCH WI  
 STORM DRAIN WITH  
 SURFACES COVERED  
PAVEMENT OR BUILD

- NOTES: 1. ALL CONCENTRATIONS  
 2. DATA FOOTNOTE AND L  
 ARE INCLUDED AT THE EN  
 SECTION.  
 3. (F) INDICATES FILTERED  
 4. NA = NOT ANALYZED

NKGW04	
Analyte	Follow-on RI
Antimony	< 4
Antimony (F)	6.3

NISW02-NKSW02		
Analyte	Initial RI	Follow-on RI
Antimony	281.373	152 f
Antimony (F)	NA	146 a

NKGW01			
Analyte	Suppl. RI	Follow-on RI	Jan 1996 Qtr
Antimony	< 38.000	< 1.11	< 5.0
Antimony (F)	< 38.000	10.1	< 5.0

Jan 1996 Qtr
< 5.0
< 5.0

STORMWATER  
OUTFALLSTORMWATER  
OUTFALL

MISSILE SILOS

E FUEL

-N-

0 50  
FEET

DAMES &amp; ]

NIKE FACIL  
CONCENTRATIONS OF ANTIMOI  
AND SURFACE

PSF26206

Date: January 1997

2



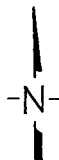
# EXPLANATION

- ⊙ MONITORING WELL WITH SOIL SAMPLES
- ⊕ INTERMEDIATE MONITORING WELL
- ⊗ DEEP MONITORING WELL
- SURFACE WATER SAMPLE
- ➔ DRAINAGE DITCH WITH FLOW DIRECTION
- ➔ STORM DRAIN WITH FLOW DIRECTION
- ▣ SURFACES COVERED BY PAVEMENT OR BUILDINGS

- NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/L}$ .
2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.
3. (F) INDICATES FILTERED SAMPLE.
4. NA = NOT ANALYZED

04  
Follow-on RI  
24  
.3

W02-NKSW02	
Initial RI	Follow-on RI
281.373	152 f
NA	146 a



0 50 100  
FEET



**DAMES & MOORE**

NIKE FACILITY  
CONCENTRATIONS OF ANTIMONY IN GROUNDWATER  
AND SURFACE WATER

PSF26206

Date: January 1997

Figure 4.5-12

3

1996 Qtr  
0  
0



NKGW02		
Analyte	Follow-on RI	Jan 1996 Qtr
Chromium	229	6.7
Chromium (F)	< 10	5.9

NISW03-NKSW03		
Analyte	Initial RI	Follow-on RI
Chromium	< 16.800	< 5.00
Chromium (F)	NA	< 5.00

NKGW03	
Analyte	Follow-on RI
Chromium	18.5
Chromium (F)	< 10 n

NKGW05		
Analyte	Follow-on RI	Jan 1996 Qtr
Chromium	159	9.6
Chromium (F)	< 10	9.9



RI

NISW01-NKSW01		
Analyte	Initial RI	Follow-on RI
Chromium	< 16.800	5.00
Chromium (F)	NA	< 5.00

# EXPLANATION

- ⊙ MONITORING WELL WITH SAMPLES
- ⊕ INTERMEDIATE MONITORING
- ⊗ DEEP MONITORING WELL
- SURFACE WATER SAMPLE
- > DRAINAGE DITCH WITH
- > STORM DRAIN WITH FLOW
- ▨ SURFACES COVERED BY PAVEMENT OR BUILDING

- NOTES: 1. ALL CONCENTRATIONS IN RI
2. DATA FOOTNOTE AND LIT ARE INCLUDED AT THE END SECTION.
3. (F) INDICATES FILTERED SAMPLE
4. NA = NOT ANALYZED

NKGW04	
Analyte	Follow-on RI
Chromium	50.4
Chromium (F)	< 10

NISW02-NKSW02		
Analyte	Initial RI	Follow-on RI
Chromium	< 16.800	6.00
Chromium (F)	NA	< 5.00

NKGW01			
Analyte	Suppl. RI	Follow-on RI	Jan 1996 Qtr
Chromium	91.600	32.0	16.4
Chromium (F)	52.200	11.0	4.1

Jan 1996 Qtr
9.6
9.9

FUEL

MISSILE SILOS

STORMWATER  
OUTFALL

STORMWATER  
OUTFALL

N

0 50  
FEET

 DAMES & MOHR

NIKE FACILITY  
CONCENTRATIONS OF CHROMIUM  
AND SURFACE WATER

PSF26195

Date: January 1997



KSW01	
RI	Follow-on RI
00	5.00
	<5.00

#### EXPLANATION

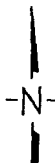
- ⊙ MONITORING WELL WITH SOIL SAMPLES
- ⊕ INTERMEDIATE MONITORING WELL
- ⊗ DEEP MONITORING WELL
- SURFACE WATER SAMPLE
- ▶ DRAINAGE DITCH WITH FLOW DIRECTION
- ▶ STORM DRAIN WITH FLOW DIRECTION
- ▤ SURFACES COVERED BY PAVEMENT OR BUILDINGS

- NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/L}$ .
2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.
3. (F) INDICATES FILTERED SAMPLE.
4. NA = NOT ANALYZED

NKGW04	
Analyte	Follow-on RI
Chromium	50.4
Chromium (F)	<10

WATER

NISW02-NKSW02		
Analyte	Initial RI	Follow-on RI
Chromium	<18.800	6.00
Chromium (F)	NA	<5.00



0 50 100  
FEET



**DAMES & MOORE**

### NIKE FACILITY CONCENTRATIONS OF CHROMIUM IN GROUNDWATER AND SURFACE WATER

PSF26195

Date: January 1997

Figure 4.5-13

1	
Follow-on RI	Jan 1998 Qtr
.0	18.4
.0	4.1



NKGW02		
Analyte	Follow-on RI	Jan 1996 Qtr
Lead	3.4	< 1.0
Lead (F)	< 3	< 1.0

NISW03-NKSW03		
Analyte	Initial RI	Follow-on RI
Lead	< 4.470	8.86
Lead (F)	NA	0.930

NKGW03	
Analyte	Follow-on RI
Lead	< 3
Lead (F)	< 3

NKGW05		
Analyte	Follow-on RI	Jan 1996 Qtr
Lead	< 3	< 1.0
Lead (F)	< 3	< 1.0

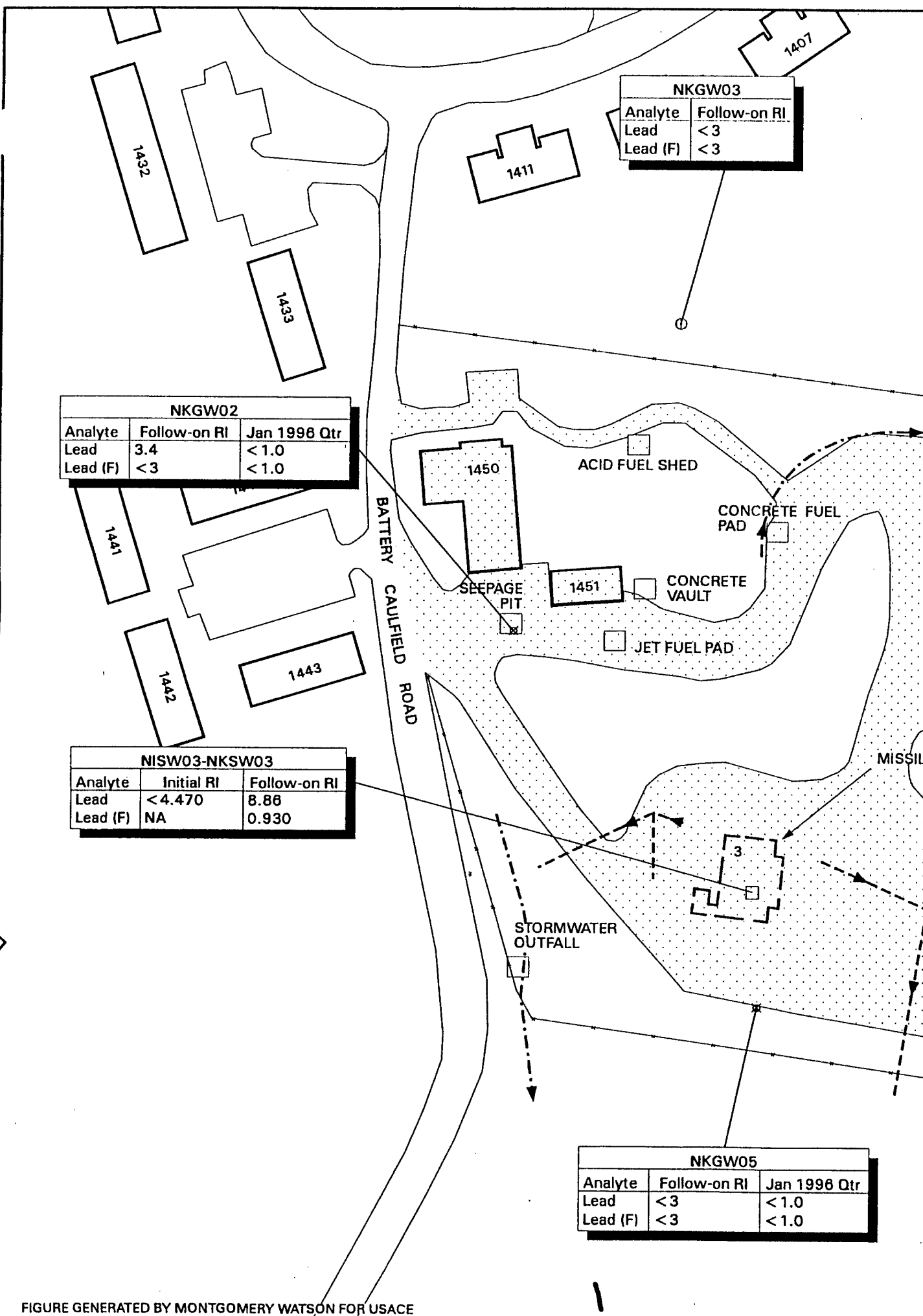


FIGURE GENERATED BY MONTGOMERY WATSON FOR USACE



1407

on RI

NISW01-NKSW01		
Analyte	Initial RI	Follow-on RI
Lead	<4.470	24.3
Lead (F)	NA	<0.735

- EXPLA**
- MONITORING WELL SAMPLES
  - ⊕ INTERMEDIATE MONITORING
  - ⊗ DEEP MONITORING
  - SURFACE WATER
  - > DRAINAGE DITCH
  - - -> STORM DRAIN WAY
  - ▨ SURFACES COVERED BY PAVEMENT OR BITUMEN

- NOTES:**
1. ALL CONCENTRATIONS ARE IN MICROGRAMS PER LITER (PPB).
  2. DATA FOOTNOTE A1 ARE INCLUDED AT THE END OF THIS SECTION.
  3. (F) INDICATES FILTERED.
  4. NA = NOT ANALYZED.

CRÉTÉ FUEL

MISSILE SILOS

STORMWATER OUTFALL

STORMWATER OUTFALL

NKGW04	
Analyte	Follow-on RI
Lead	<3
Lead (F)	<3

NISW02-NKSW02		
Analyte	Initial RI	Follow-on RI
Lead	<4.470	9.38
Lead (F)	NA	1.54

NKGW01			
Analyte	Suppl. RI	Follow-on RI	Jan 1996 Qtr
Lead	11	1.03 f	2.0
Lead (F)	<1.260	<0.735	1.7

NISW01	
Analyte	Jan 1996 Qtr
Lead	<1.0
Lead (F)	<1.0



NIKE FUEL TANKS  
CONCENTRATIONS OF LEAD  
AND SURFACE WATER

PSF26204

Date: January 1997

2



v-on RI

35

# EXPLANATION

- ⊙ MONITORING WELL WITH SOIL SAMPLES
- ⊕ INTERMEDIATE MONITORING WELL
- ⊗ DEEP MONITORING WELL
- SURFACE WATER SAMPLE
- ▶ DRAINAGE DITCH WITH FLOW DIRECTION
- ▶ STORM DRAIN WITH FLOW DIRECTION
- ▨ SURFACES COVERED BY PAVEMENT OR BUILDINGS

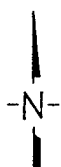
- NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/L}$ .
2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.
3. (F) INDICATES FILTERED SAMPLE.
4. NA = NOT ANALYZED

## NKGW04

lyte	Follow-on RI
J	< 3
J (F)	< 3

## NISW02-NKSW02

lyte	Initial RI	Follow-on RI
J	< 4.470	9.38
J (F)	NA	1.54



DAMES & MOORE

## NIKE FACILITY CONCENTRATIONS OF LEAD IN GROUNDWATER AND SURFACE WATER

PSF26204

Date: January 1997

Figure 4.5-14

Jan 1996 Qtr

2.0  
1.7



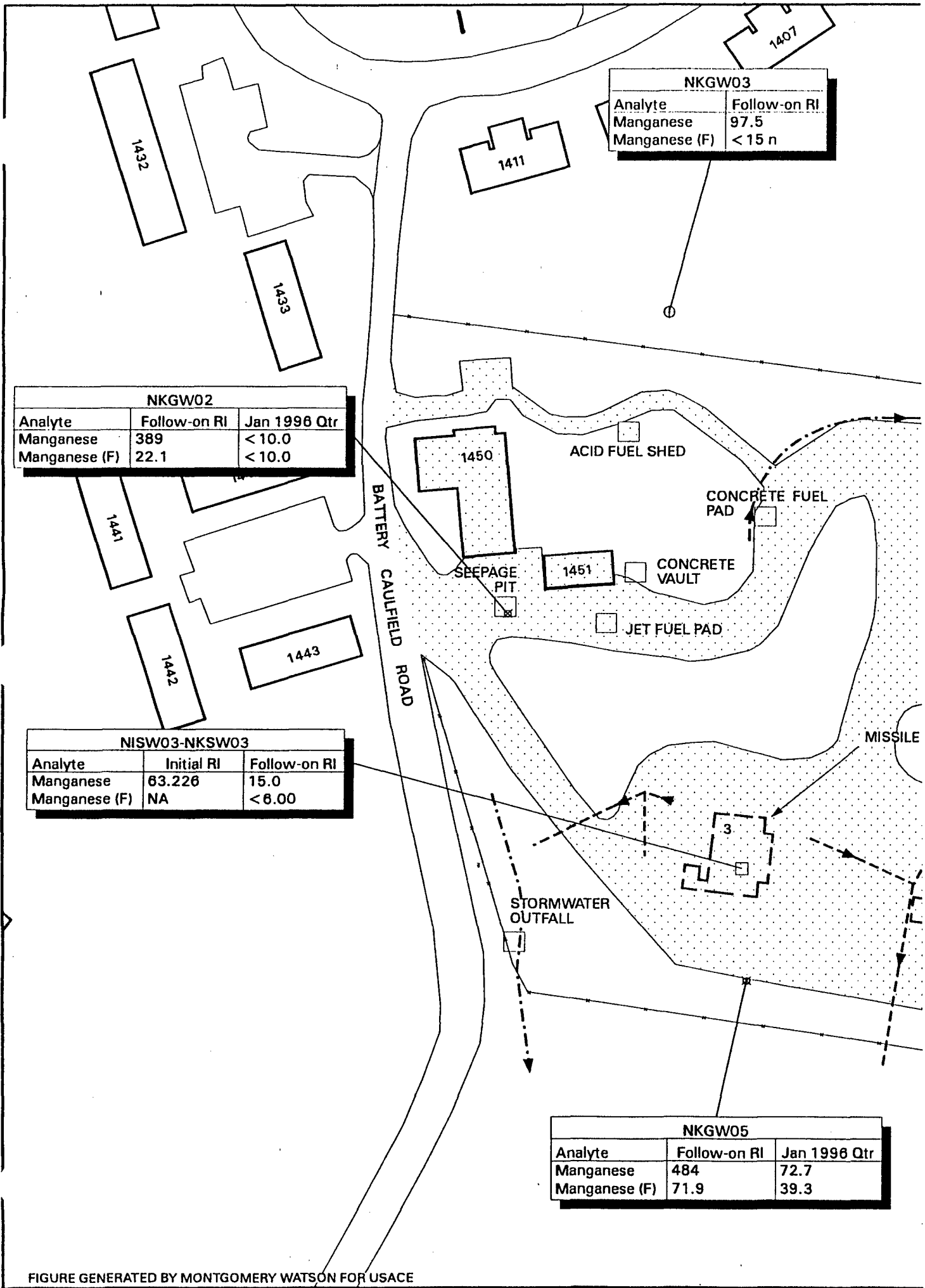


FIGURE GENERATED BY MONTGOMERY WATSON FOR USACE



1407

2

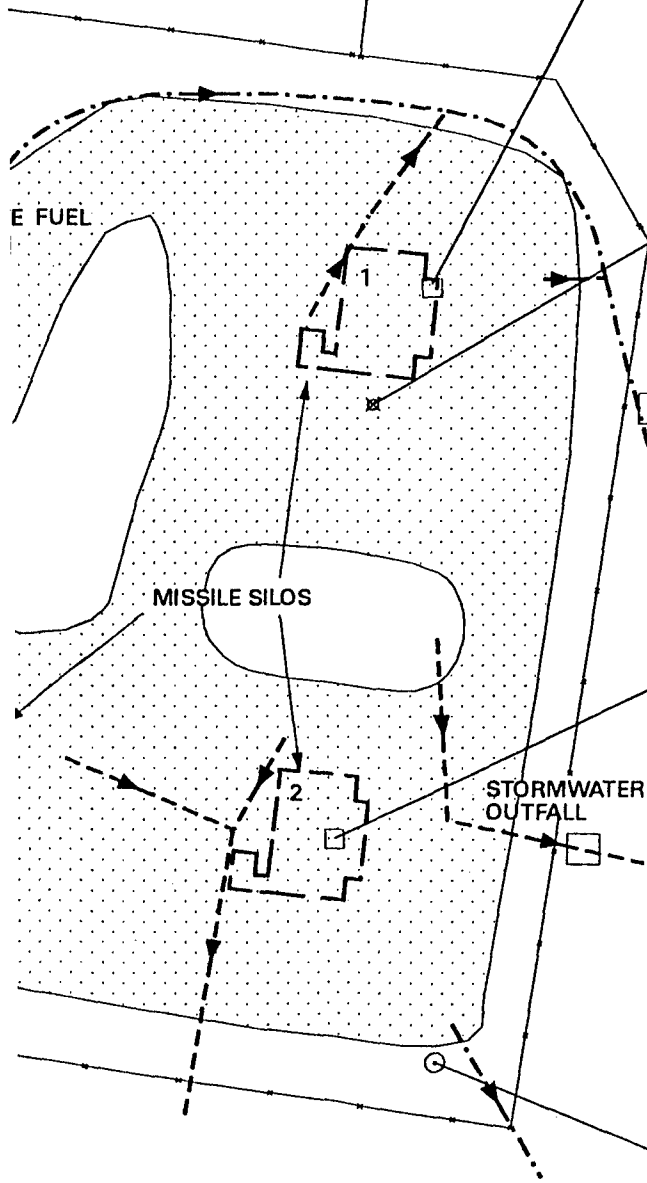
on RI

NISW01-NKSW01		
Analyte	Initial RI	Follow-on RI
Manganese	14.529	68.0
Manganese (F)	NA	9.00

**EXPLANATI**

- ⊙ MONITORING WELL V
- ⊕ INTERMEDIATE MONI
- ⊗ DEEP MONITORING V
- SURFACE WATER SAM
- > DRAINAGE DITCH WI
- > STORM DRAIN WITH I
- ▨ SURFACES COVERED PAVEMENT OR BUILD

- NOTES:**
1. ALL CONCENTRATIONS I
  2. DATA FOOTNOTE AND LI ARE INCLUDED AT THE ENI SECTION.
  3. (F) INDICATES FILTERED
  4. NA = NOT ANALYZED

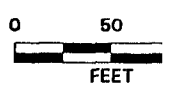
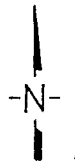


NKGW04	
Analyte	Follow-on RI
Manganese	122
Manganese (F)	< 15

NISW02-NKSW02		
Analyte	Initial RI	Follow-on RI
Manganese	< 9.670	42.0
Manganese (F)	NA	30.0

NKGW01			
Analyte	Suppl. RI	Follow-on RI	Jan 1996 Qtr
Manganese	1030.000	43.0	34.6
Manganese (F)	81.900	< 6.00	< 10.0

Jan 1996 Qtr
72.7
39.3



**NIKE FACILI  
CONCENTRATIONS OF MANGANE  
AND SURFACE V**








PSF26200

Date: January 1997 F



w-on RI

**EXPLANATION**

-  MONITORING WELL WITH SOIL SAMPLES  
 INTERMEDIATE MONITORING WELL  
 DEEP MONITORING WELL  
 SURFACE WATER SAMPLE  
 DRAINAGE DITCH WITH FLOW DIRECTION  
 STORM DRAIN WITH FLOW DIRECTION  
 SURFACES COVERED BY PAVEMENT OR BUILDINGS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/L}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. (F) INDICATES FILTERED SAMPLE.

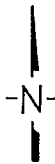
4. NA = NOT ANALYZED

NKGW04

	Follow-on RI
e	122
e (F)	< 15

NISW02-NKSW02

	Initial RI	Follow-on RI
e	< 9.670	42.0
e (F)	NA	30.0



0 50 100  
FEET

**DAMES & MOORE**

**NIKE FACILITY  
CONCENTRATIONS OF MANGANESE IN GROUNDWATER  
AND SURFACE WATER**

PSF26200

Date: January 1997

Figure 4.5-15

Jan 1996 Qtr  
34.6  
< 10.0



NKGW02		
Analyte	Follow-on RI	Jan 1996 Qtr
Mercury	<0.2	<0.20
Mercury (F)	NA	<0.20

NKGW03	
Analyte	Follow-on RI
Mercury	<0.2 n

NISW03-NKSW03		
Analyte	Initial RI	Follow-on RI
Mercury	<0.100	0.500 f

NKGW05		
Analyte	Follow-on RI	Jan 1996 Qtr
Mercury	<0.2	<0.20
Mercury (F)	NA	<0.20

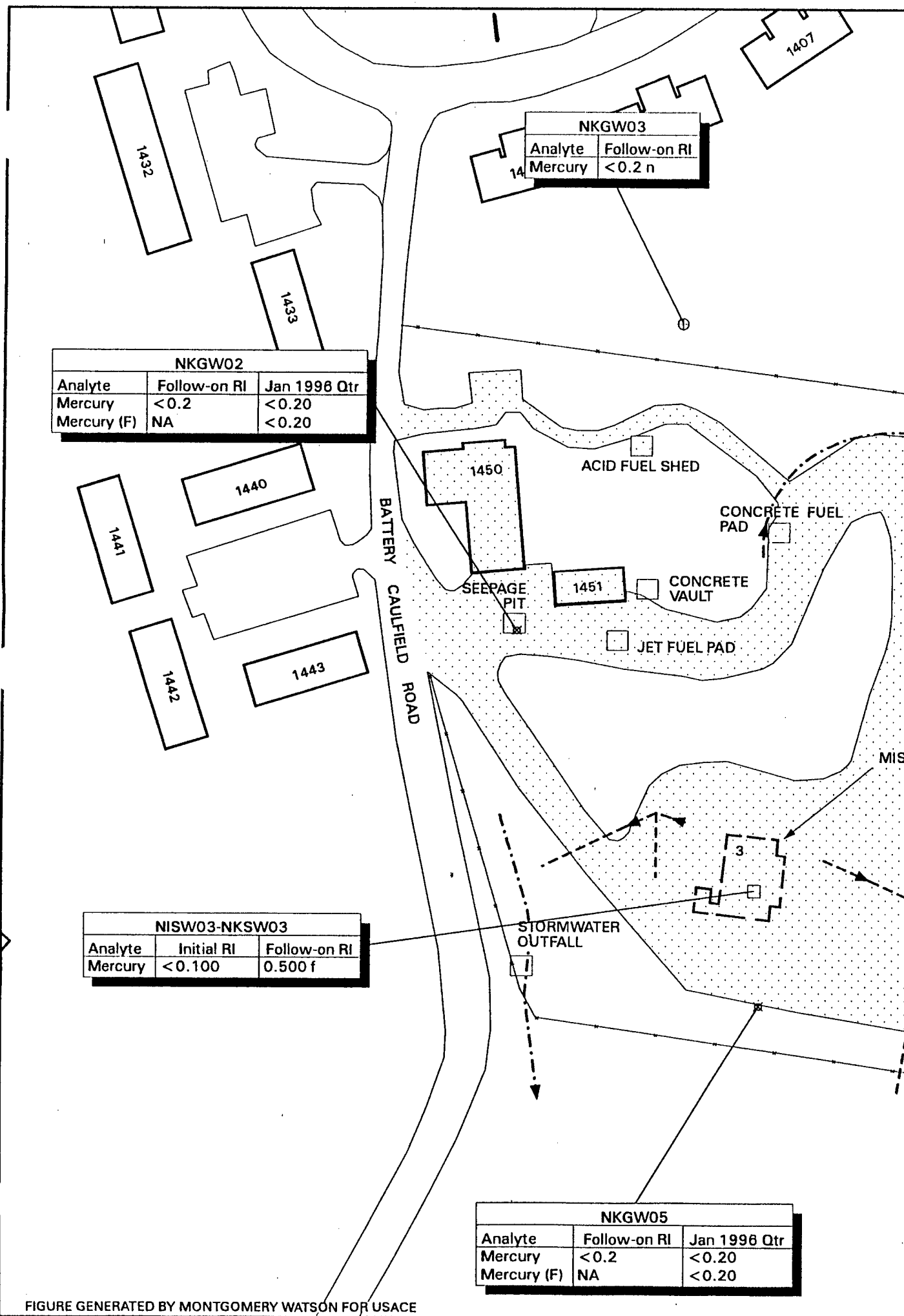


FIGURE GENERATED BY MONTGOMERY WATSON FOR USACE



**EXPLANATIO**

- ⊙ MONITORING WELL WI SAMPLES
- ⊕ INTERMEDIATE MONIT
- ⊗ DEEP MONITORING WE
- SURFACE WATER SAMF
- > DRAINAGE DITCH WITH
- > STORM DRAIN WITH FL
- ▨ SURFACES COVERED B PAVEMENT OR BUILDIN

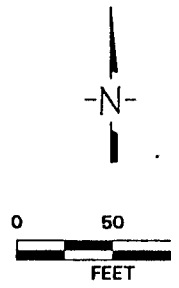
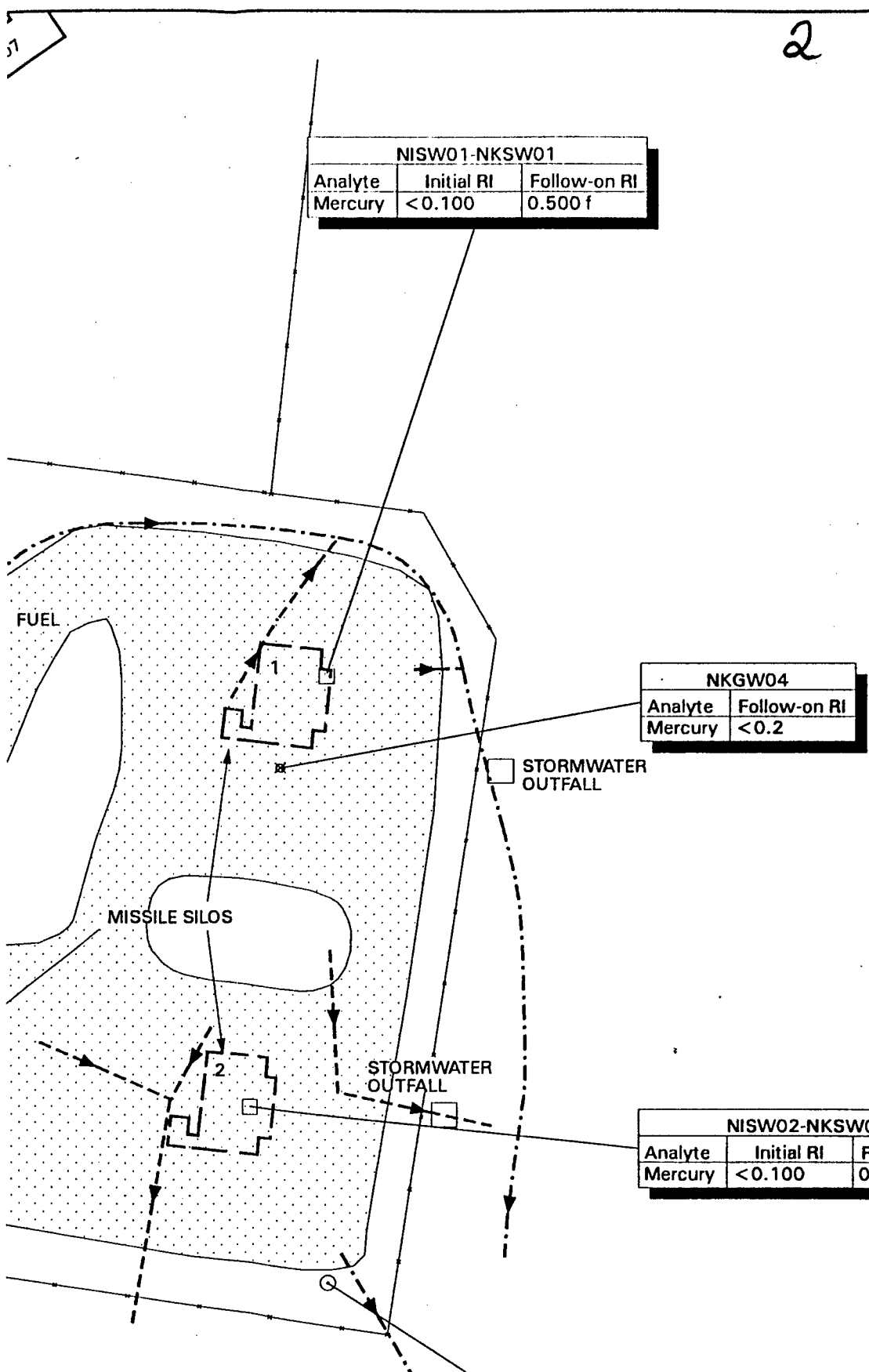
- NOTES: 1. ALL CONCENTRATIONS RI
2. DATA FOOTNOTE AND LIT ARE INCLUDED AT THE END SECTION.
3. (F) INDICATES FILTERED S
4. NA = NOT ANALYZED

NISW01-NKSW01		
Analyte	Initial RI	Follow-on RI
Mercury	<0.100	0.500 f

NKGW04	
Analyte	Follow-on RI
Mercury	<0.2

NISW02-NKSW02		
Analyte	Initial RI	Follow-on RI
Mercury	<0.100	0.500 f

NKGW01			
Analyte	Suppl. RI	Follow-on RI	Jan 1996 Qtr
Mercury	<0.500	8.60	2.4
Mercury (F)	NA	NA	2.1



**NIKE FACILI  
CONCENTRATIONS OF MERCUR  
AND SURFACE V**

PSF26198



ow-on RI  
0 f

### EXPLANATION

- ⊙ MONITORING WELL WITH SOIL SAMPLES
- ⊕ INTERMEDIATE MONITORING WELL
- ⊗ DEEP MONITORING WELL
- SURFACE WATER SAMPLE
- ▶ DRAINAGE DITCH WITH FLOW DIRECTION
- ▶ STORM DRAIN WITH FLOW DIRECTION
- ▒ SURFACES COVERED BY PAVEMENT OR BUILDINGS

- NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/L}$ .
2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.
3. (F) INDICATES FILTERED SAMPLE.
4. NA = NOT ANALYZED

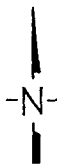
#### NKGW04

Analyte	Follow-on RI
Mercury	<0.2

MWATER  
ALL

#### NISW02-NKSW02

Analyte	Initial RI	Follow-on RI
Mercury	<0.100	0.500 f



## DAMES & MOORE

### NIKE FACILITY CONCENTRATIONS OF MERCURY IN GROUNDWATER AND SURFACE WATER

PSF26198

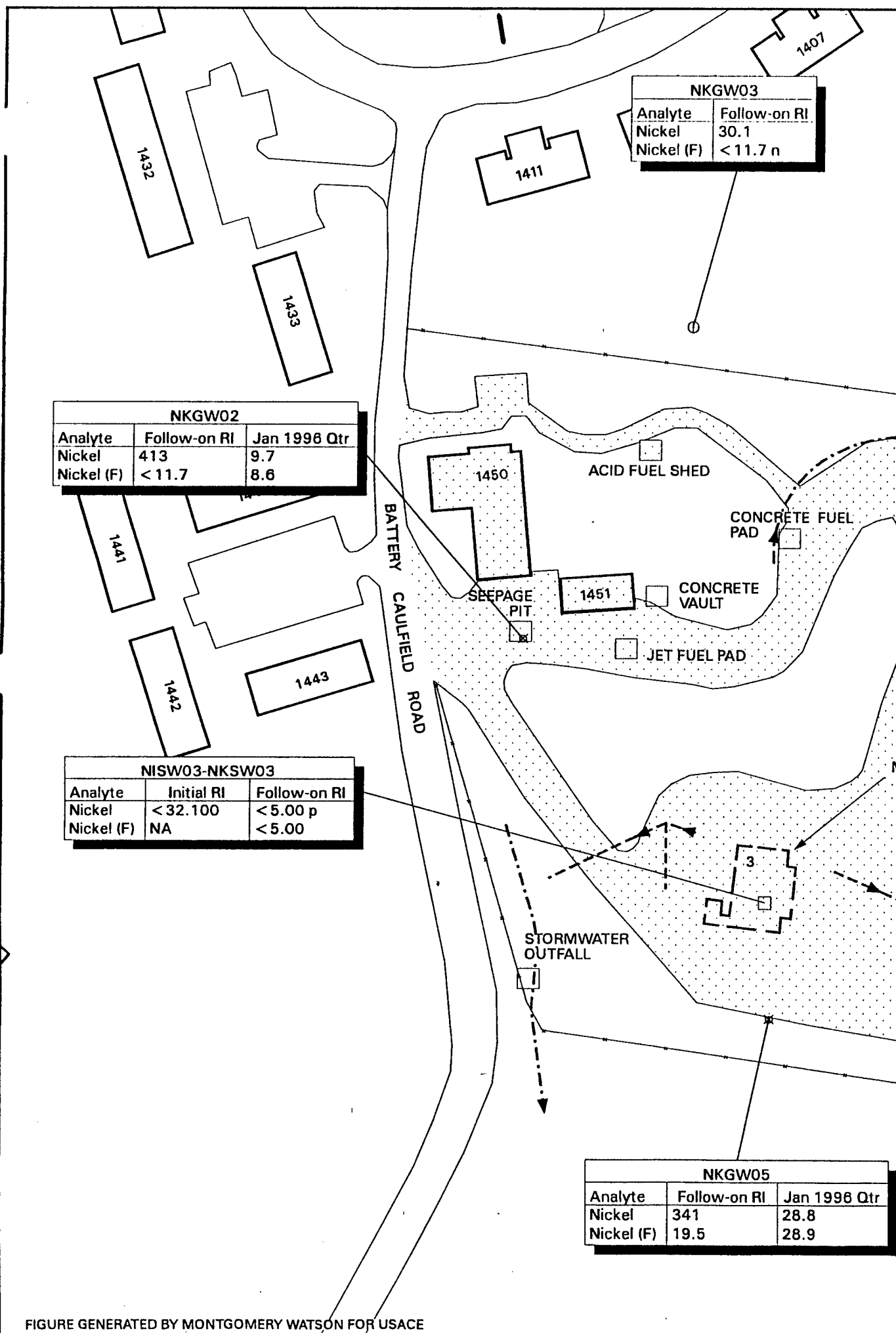
Date: January 1997

Figure 4.5-16

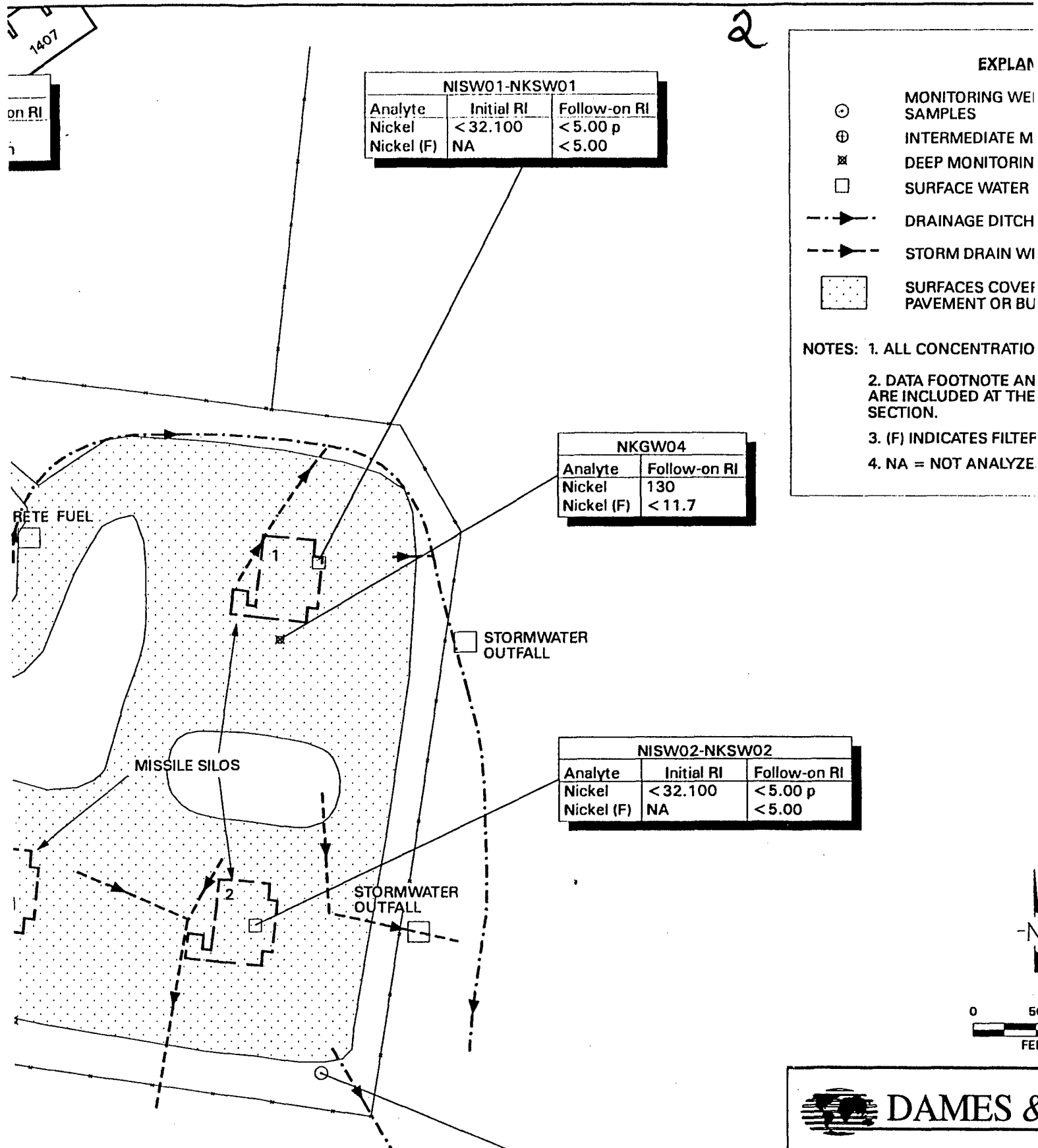
#### GW01

Follow-on RI	Jan 1996 Qtr
8.60	2.4
NA	2.1









NISW01-NKSW01

Analyte	Initial RI	Follow-on RI
Nickel	< 32.100	< 5.00 p
Nickel (F)	NA	< 5.00

NKGW04

Analyte	Follow-on RI
Nickel	130
Nickel (F)	< 11.7

NISW02-NKSW02

Analyte	Initial RI	Follow-on RI
Nickel	< 32.100	< 5.00 p
Nickel (F)	NA	< 5.00

NKGW01

Analyte	Suppl. RI	Follow-on RI	Jan 1996 Qtr
Nickel	943.000	166 an	110
Nickel (F)	< 34.300	78.3	71.7

Jan 1996 Qtr

28.8
28.9



NIKE FAI  
CONCENTRATIONS OF NIC  
AND SURFAC

PSF26202

Date: January 1997



## EXPLANATION

- ⊙ MONITORING WELL WITH SOIL SAMPLES
- ⊕ INTERMEDIATE MONITORING WELL
- ⊗ DEEP MONITORING WELL
- SURFACE WATER SAMPLE
- ➔ DRAINAGE DITCH WITH FLOW DIRECTION
- ➔ STORM DRAIN WITH FLOW DIRECTION
- ▤ SURFACES COVERED BY PAVEMENT OR BUILDINGS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/L}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. (F) INDICATES FILTERED SAMPLE.

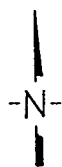
4. NA = NOT ANALYZED

v-on RI

7

2-NKSW02

ial RI	Follow-on RI
100	<5.00 p
	<5.00



0 50 100  
FEET



DAMES &amp; MOORE

NIKE FACILITY  
CONCENTRATIONS OF NICKEL IN GROUNDWATER  
AND SURFACE WATER

PSF26202

Date: January 1997

Figure 4.5-17

3 Qtr



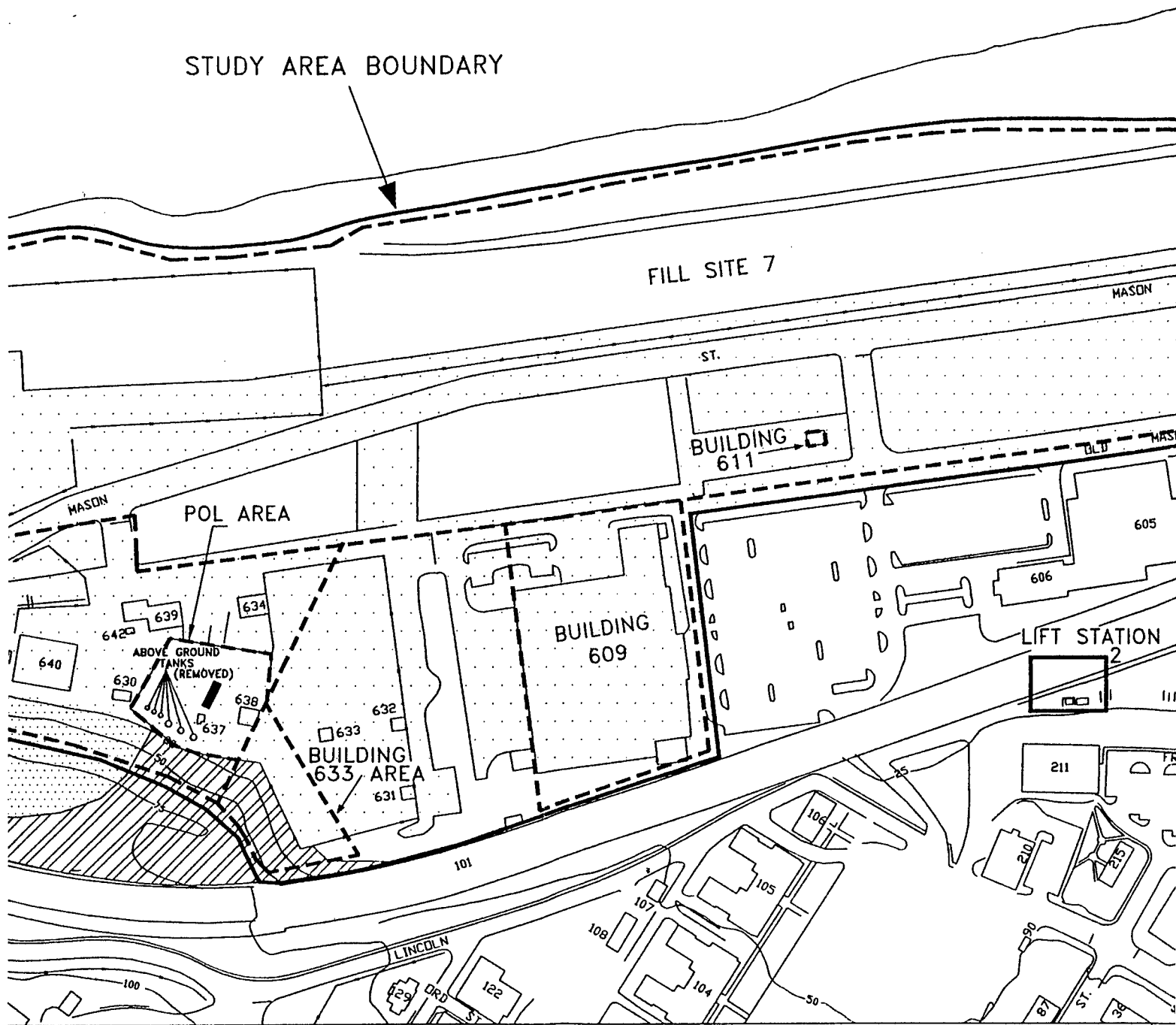




## SAN FRANCISCO BAY

STUDY AREA BOUNDARY

FILL SITE 7



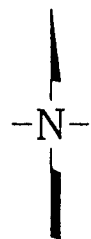
SURFACES COVERED BY  
PAVEMENT OR BUILDINGS

75

TOPOGRAPHIC CONTOUR  
CONTOUR INTERVAL 25 FEET

ELEVATIONS IN  
FEET-PRESIDIO LOWER LOW WATER

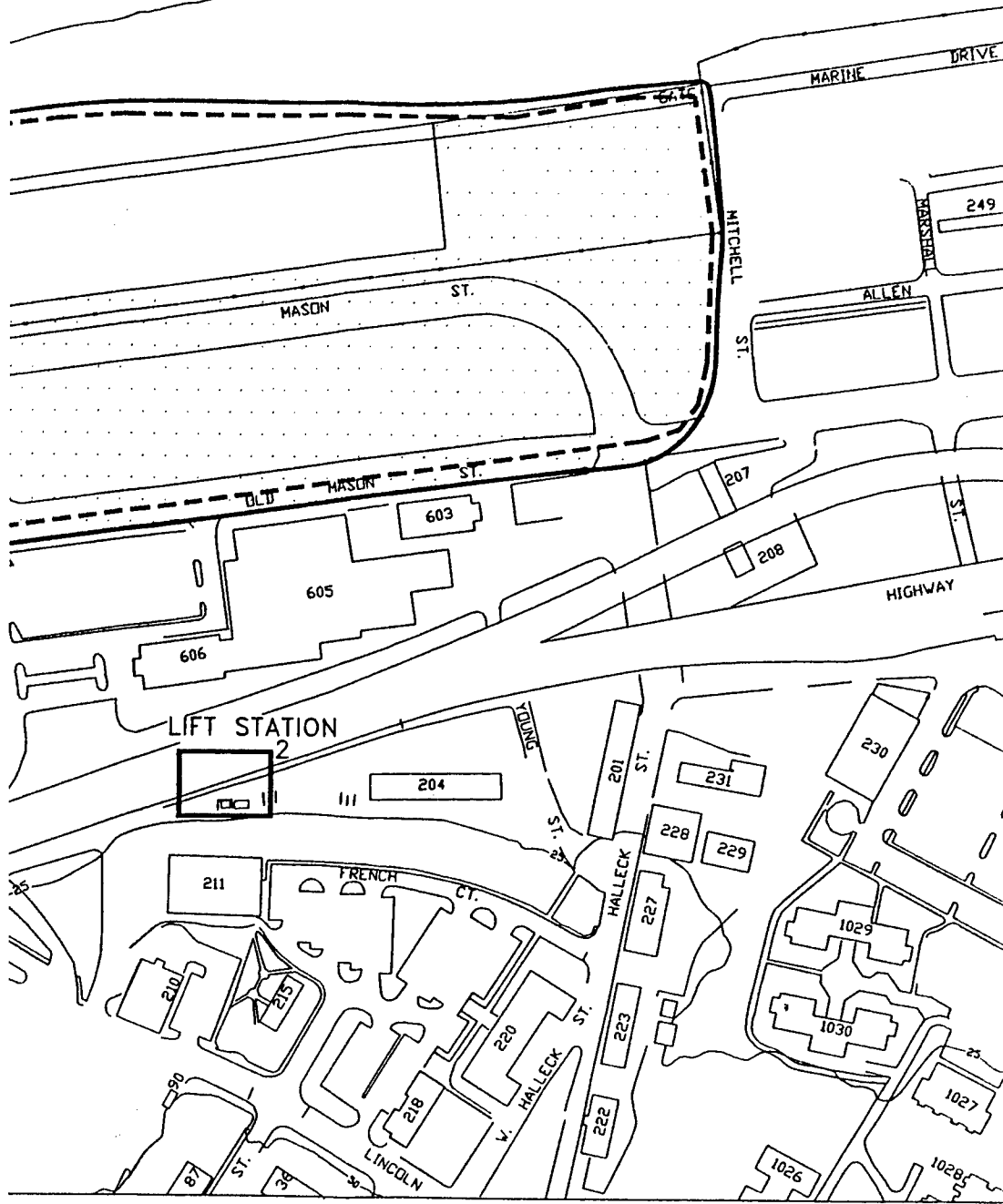
NOTES: LITHOLOGIC INTERPRETATIONS  
BASED ON SCHLOCKER (1974)



0 125 250  
FEET



SCO BAY



DAMES & MOORE

CRISSY FIELD  
STUDY AREA

PSF25019/DV1

Date: January 1997

Figure 5.1-1

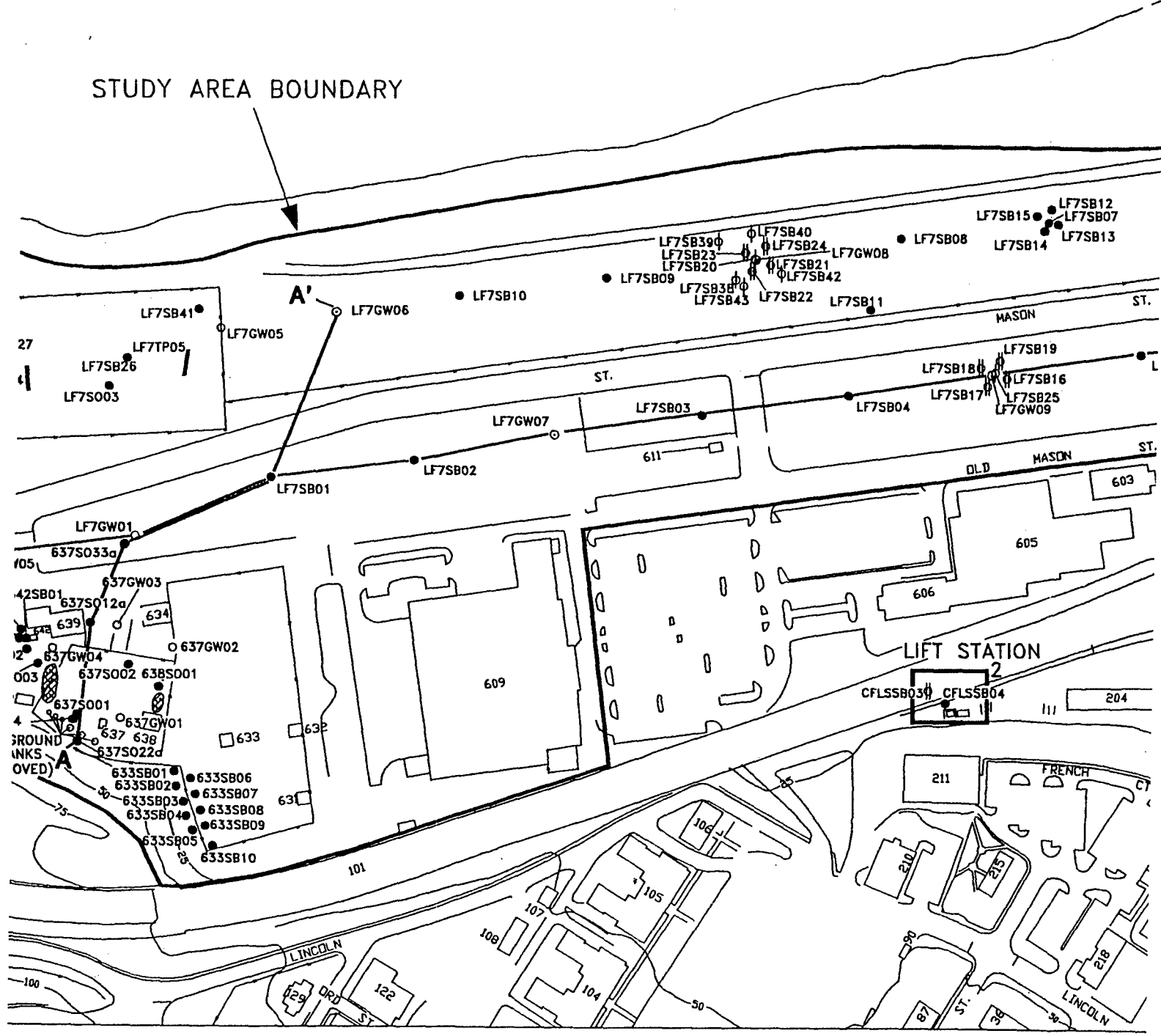






SAN FRANCISCO BAY

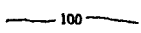
STUDY AREA BOUNDARY



NOTATION



CROSS SECTION LOCATION



TOPOGRAPHIC CONTOUR

CONTOUR INTERVAL 25 FEET

ELEVATIONS IN FEET-PRESIDIO LOWER LOW WATER

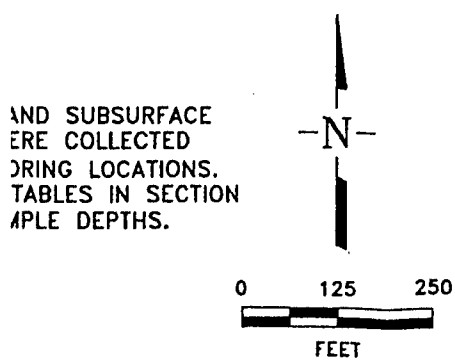
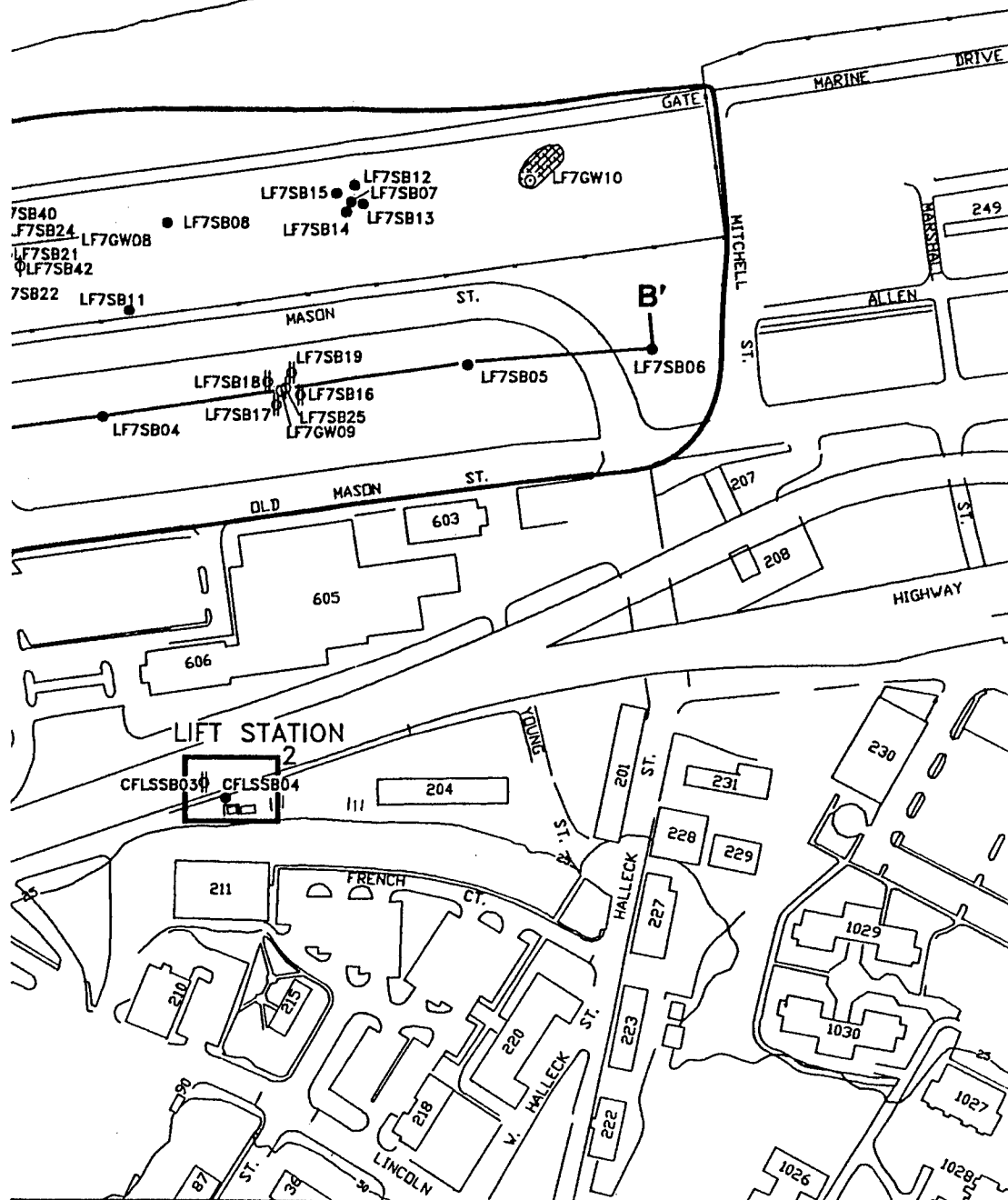
NOTE: SURFACE AND SUBSURFACE SOIL SAMPLES WERE COLLECTED AT SOME SOIL BORING LOCATIONS. THE ANALYTICAL TABLES IN SECTION 5.4 INDICATE SAMPLE DEPTHS.



PSF  
Dat



# SCO BAY



AND SUBSURFACE  
ERE COLLECTED  
RING LOCATIONS.  
TABLES IN SECTION  
APLE DEPTHS.



**DAMES & MOORE**

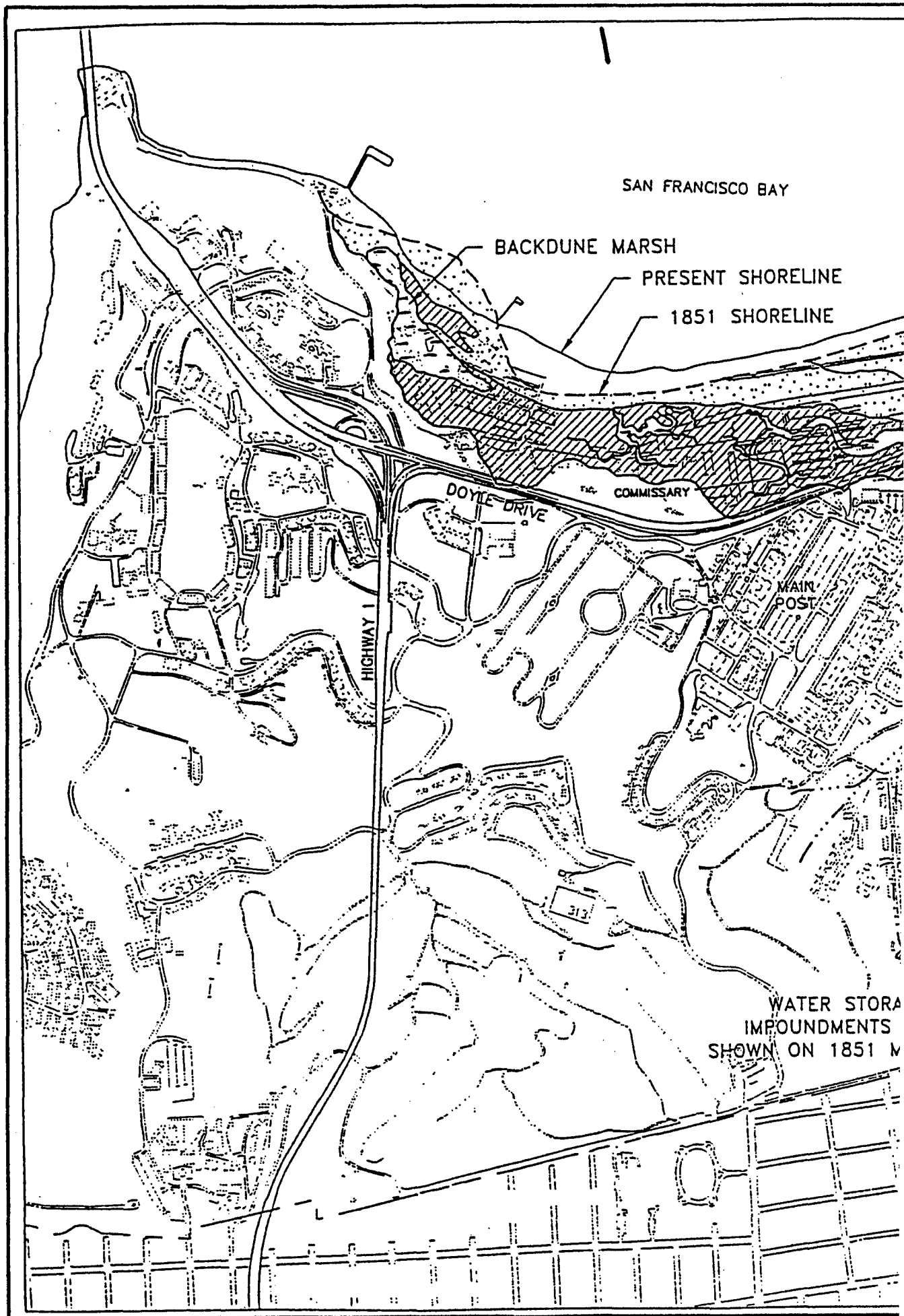
**CRISSY FIELD STUDY AREA  
TEST PIT, SOIL BORING,  
MONITORING WELL, &  
CROSS SECTION LOCATIONS**

PSF25007/DV1

Date: January 1997

Figure 5.1-2





SAN FRANCISCO BAY

BACKDUNE MARSH

PRESENT SHORELINE

1851 SHORELINE

DOYLE DRIVE

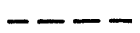
COMMISSARY

MAIN POST

WATER STORAGE  
IMPOUNDMENTS  
SHOWN ON 1851 M



LEGEND



ISCO BAY

1851 SHORELINE

CURRENT SHORELINE

TIDAL MARSH

MAIN POST

LETTERMAN'S COMPLEX

WATER STORAGE  
IMPOUNDMENTS AS  
SHOWN ON 1851 MAP

U.S. COAST AND GEODETIC SURVEY



HISTORICAL  
PRESIDENT

PSF25052\DV1  
Date: January



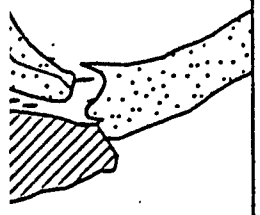
LEGEND:

 SAND DUNE

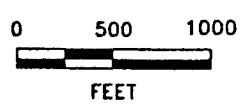
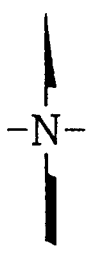
 WETLAND


 OPEN WATER

----- 1851 SHORELINE



SOURCE:  
U.S. COAST SURVEY, 1851  
AS AMENDED BY D&M, 1995



 **DAMES & MOORE**

**HISTORICAL WETLANDS  
PRESIDIO OF SAN FRANCISCO**

PSF25052\DV1

Date: January 1997

Figure 5.1-3

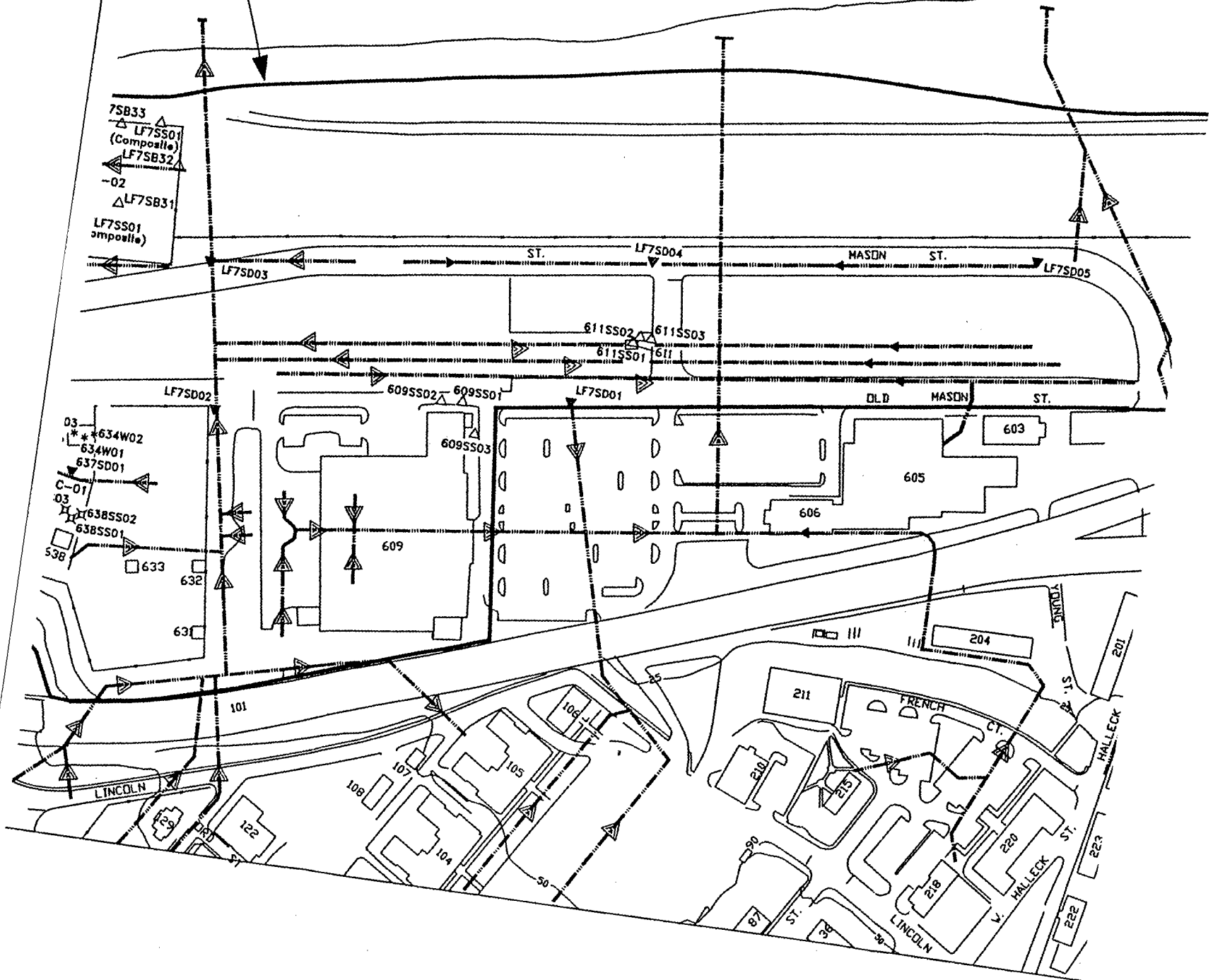






2  
SAN FRANCISCO BAY

DY AREA BOUNDARY



WATER

HE WATER

-N-

0 125 250  
FEET

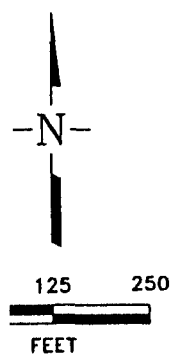
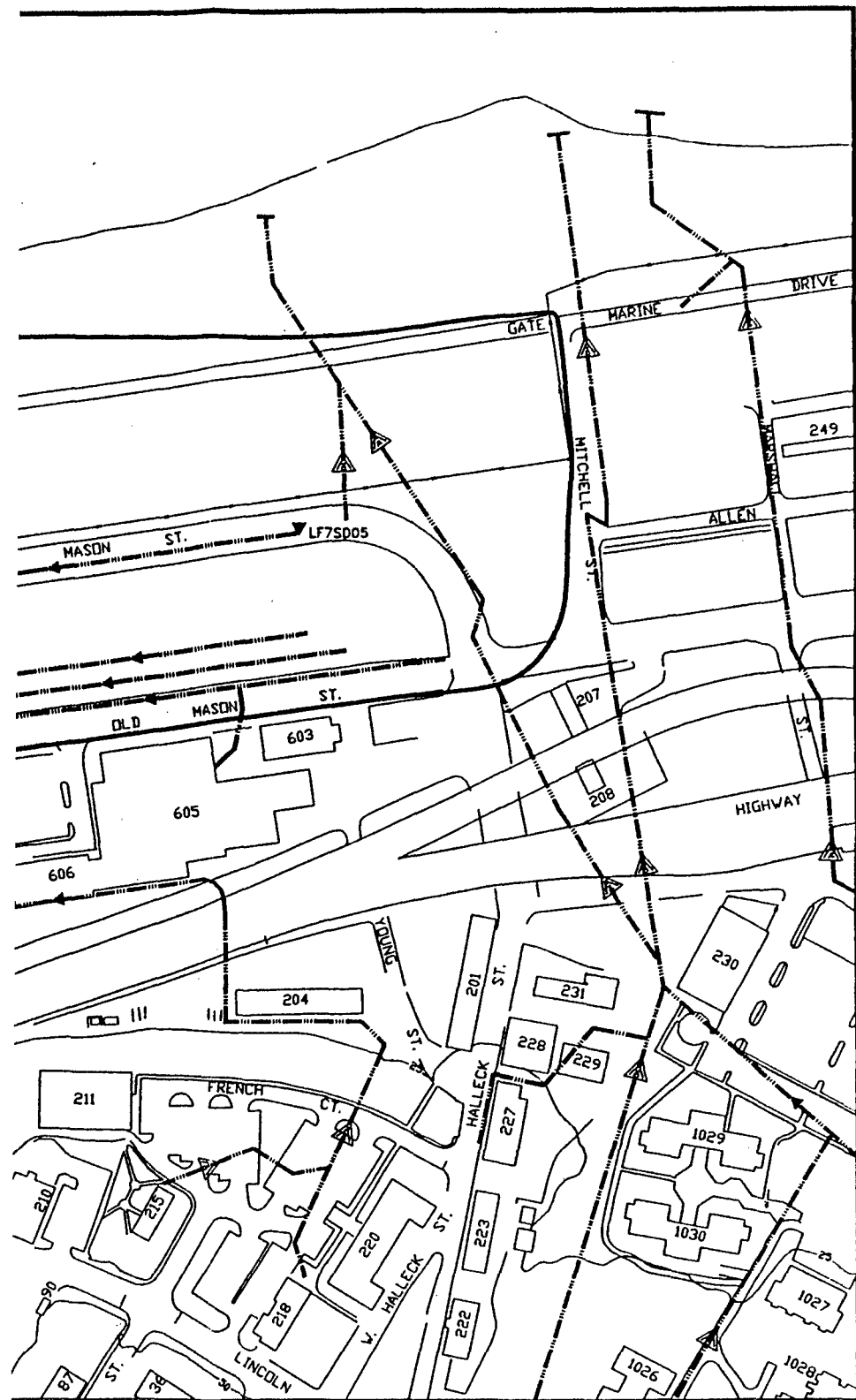



CRISSY  
STORM DRA  
AND SURFACE

PSF25020/DV1

Date: January 1





 **DAMES & MOORE**

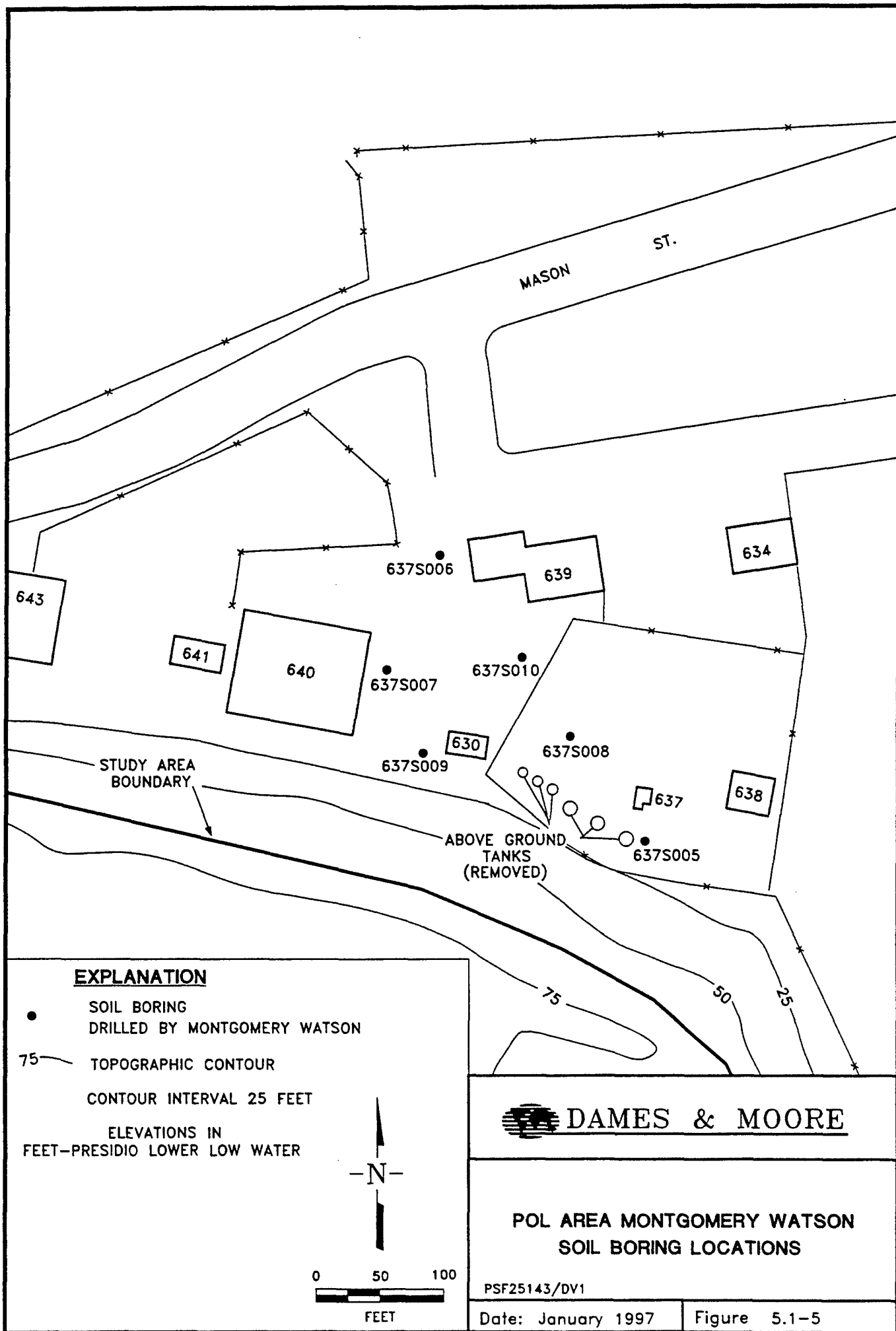
**CRISSY FIELD STUDY AREA  
STORM DRAIN AND SEDIMENT, WIPE,  
AND SURFACE SOIL SAMPLE LOCATIONS**

PSF25020/DV1

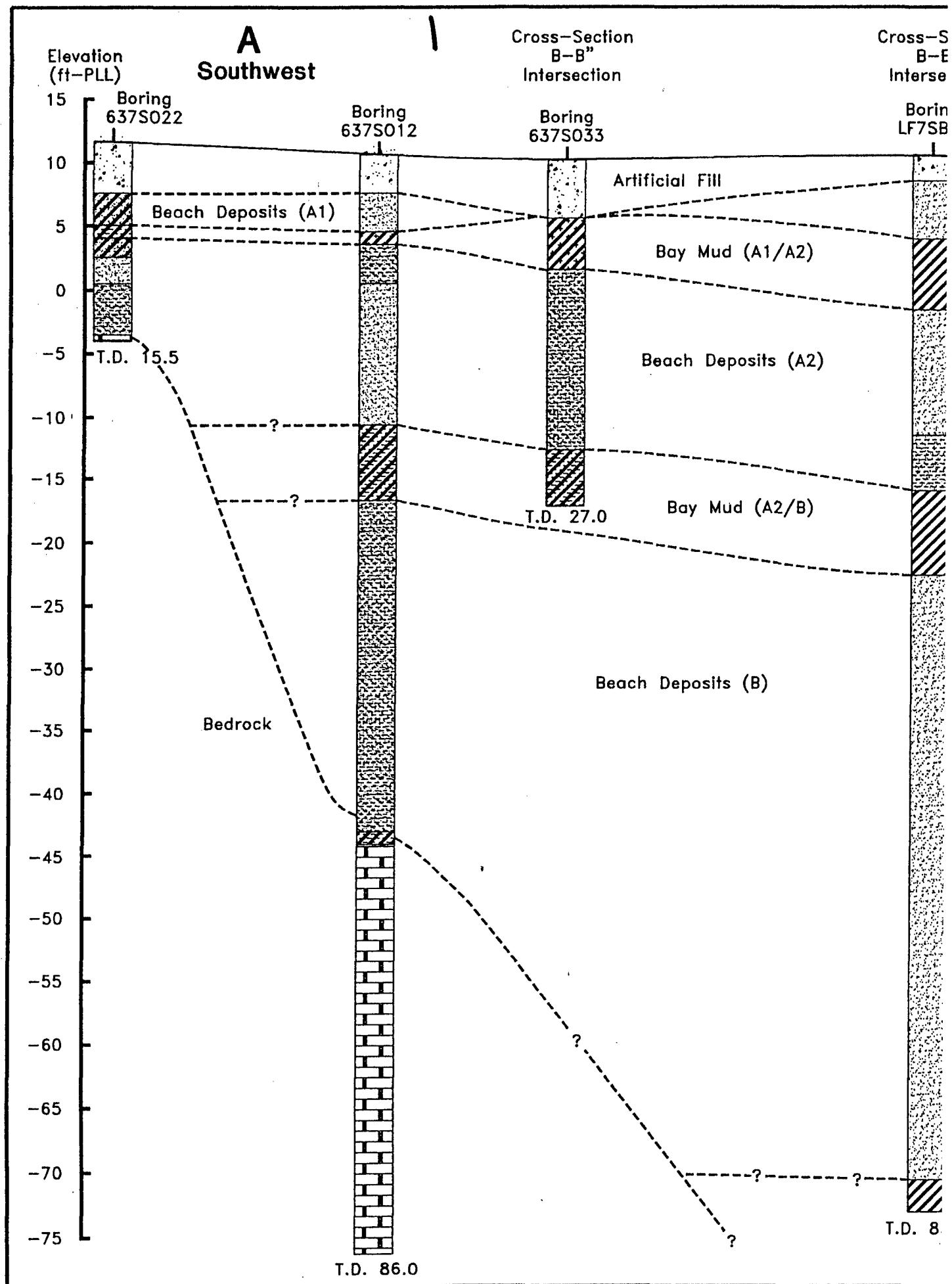
Date: January 1997

Figure 5.1-4











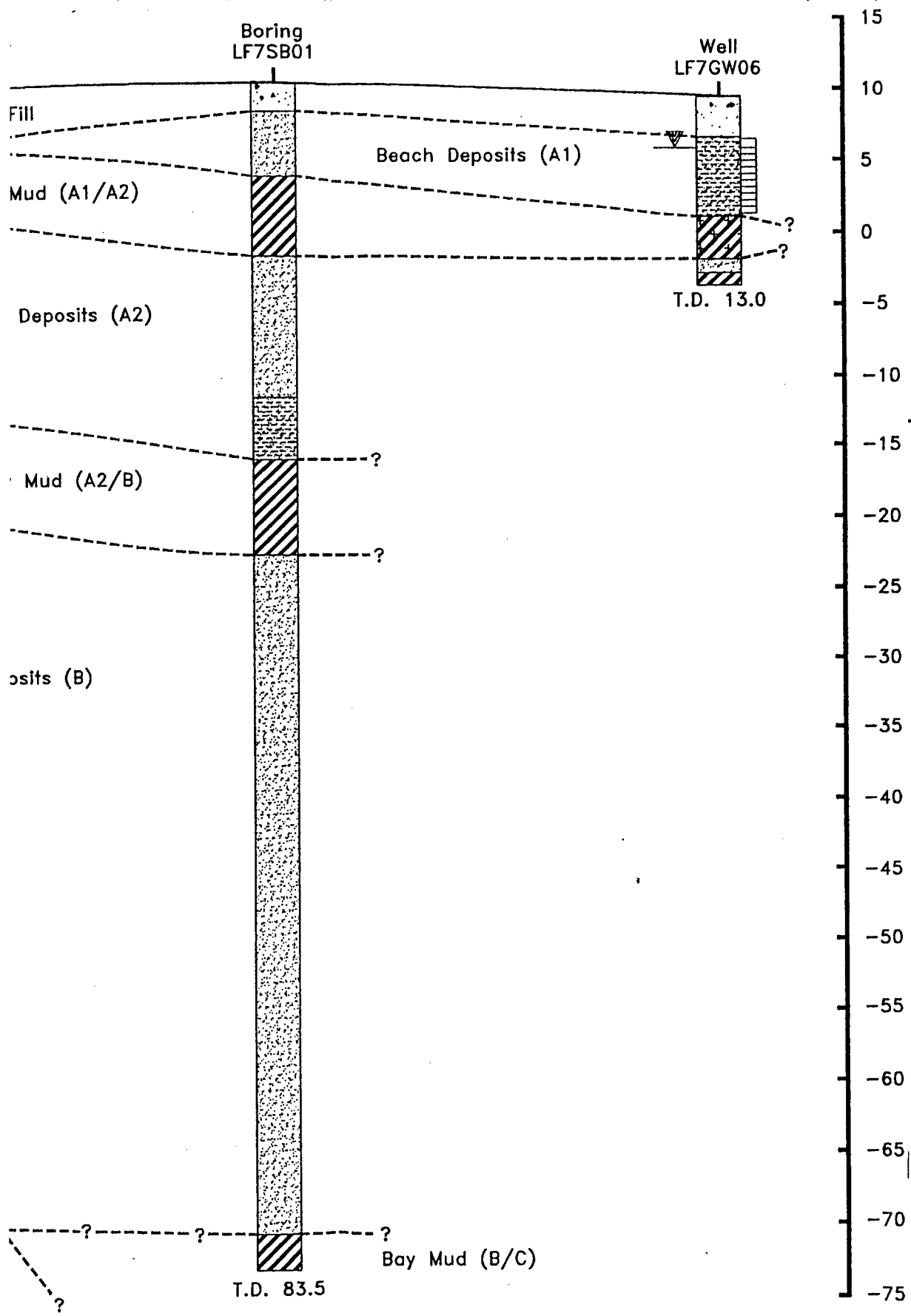
Cross-Section  
B-B"  
Intersection

2

A'  
Northeast

Elevation  
(ft-PLL)

EXPLAN



Artificial F



Organic M



Clay



Silt



Sand



Bedrock

(A1/A2)

Montgomery  
Hydrostratigr



Contact, das  
inferred



Water Level

T.D.

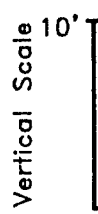
Total Depth

ft-PLL

feet-Presidi



Well Screen



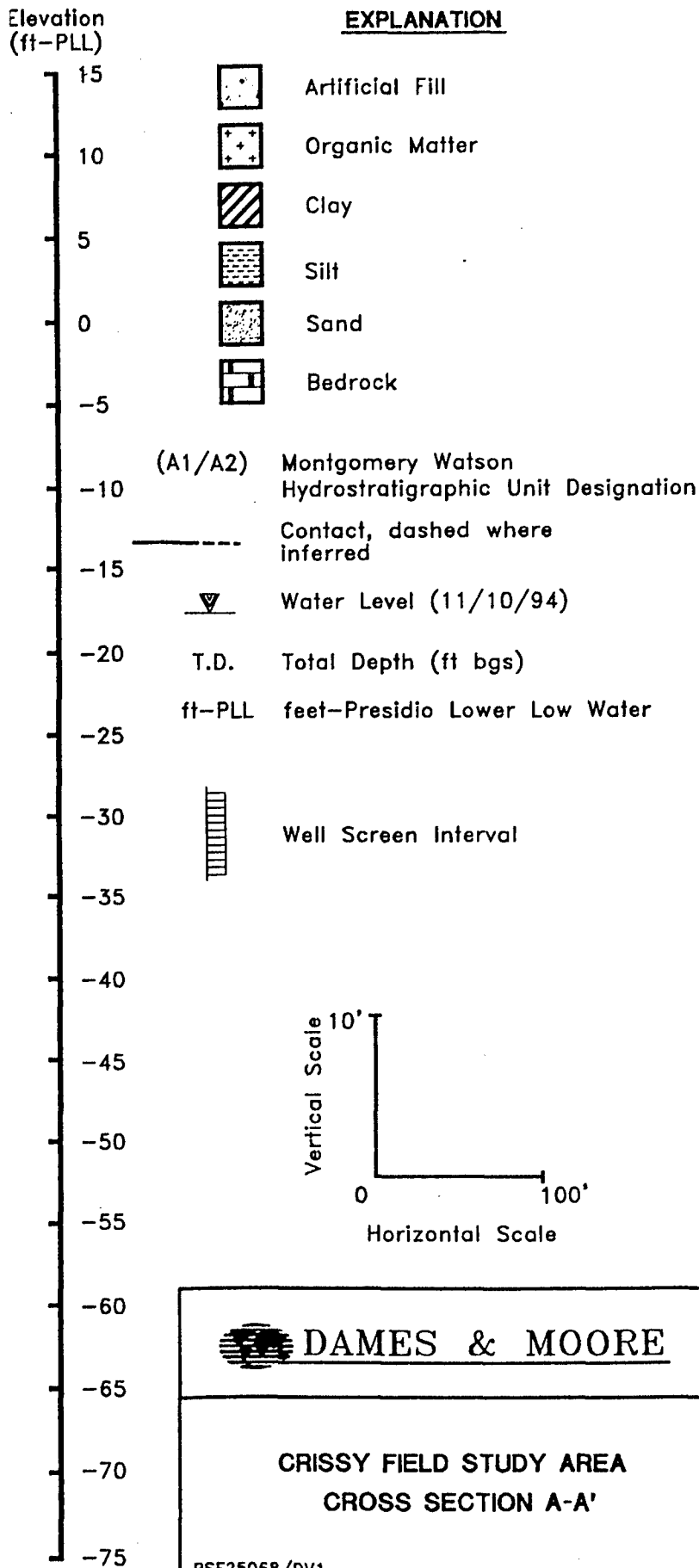
DAMES

CRISSY FIE  
CROSS

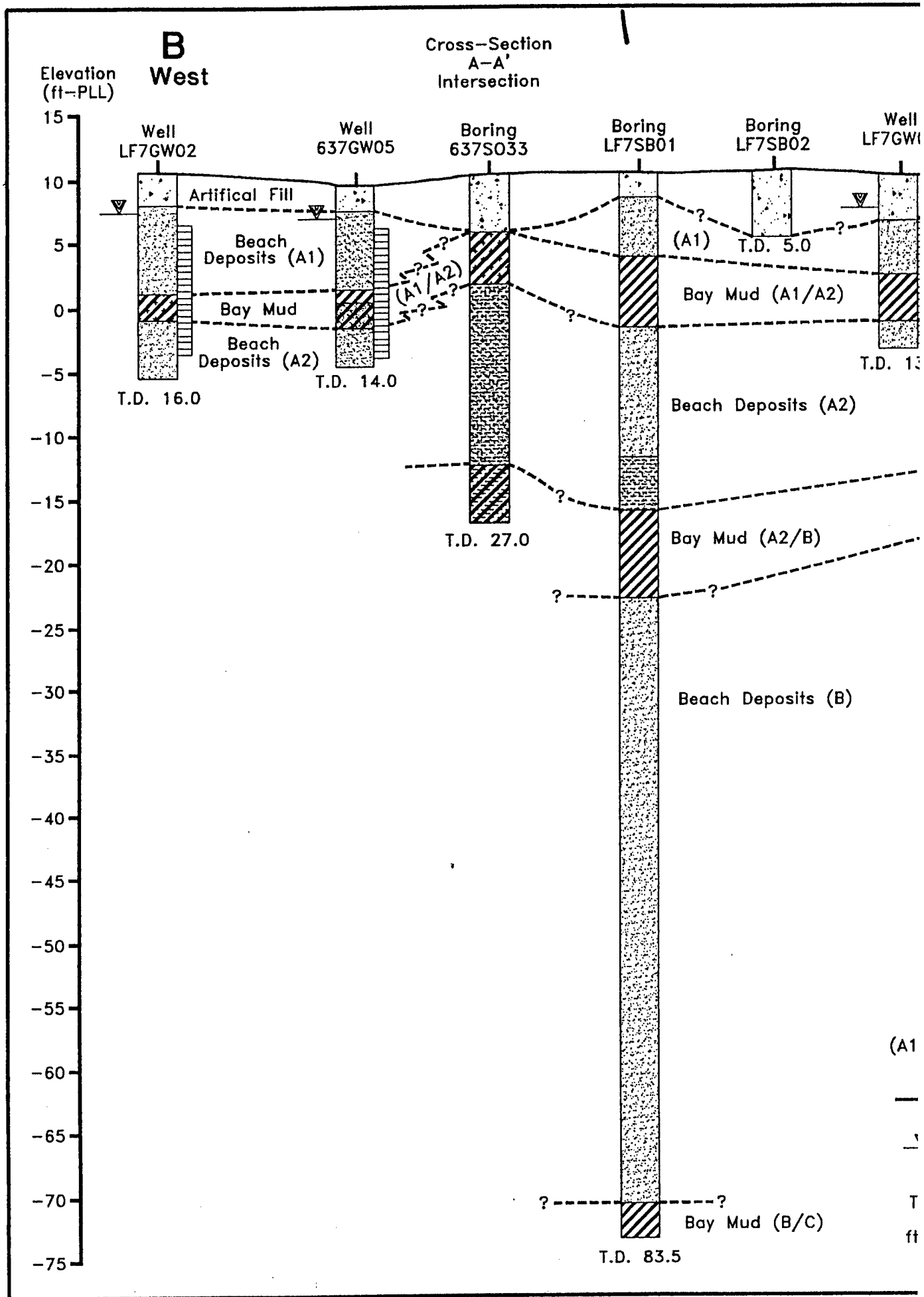
PSF25068/DV1

Date: January 1997







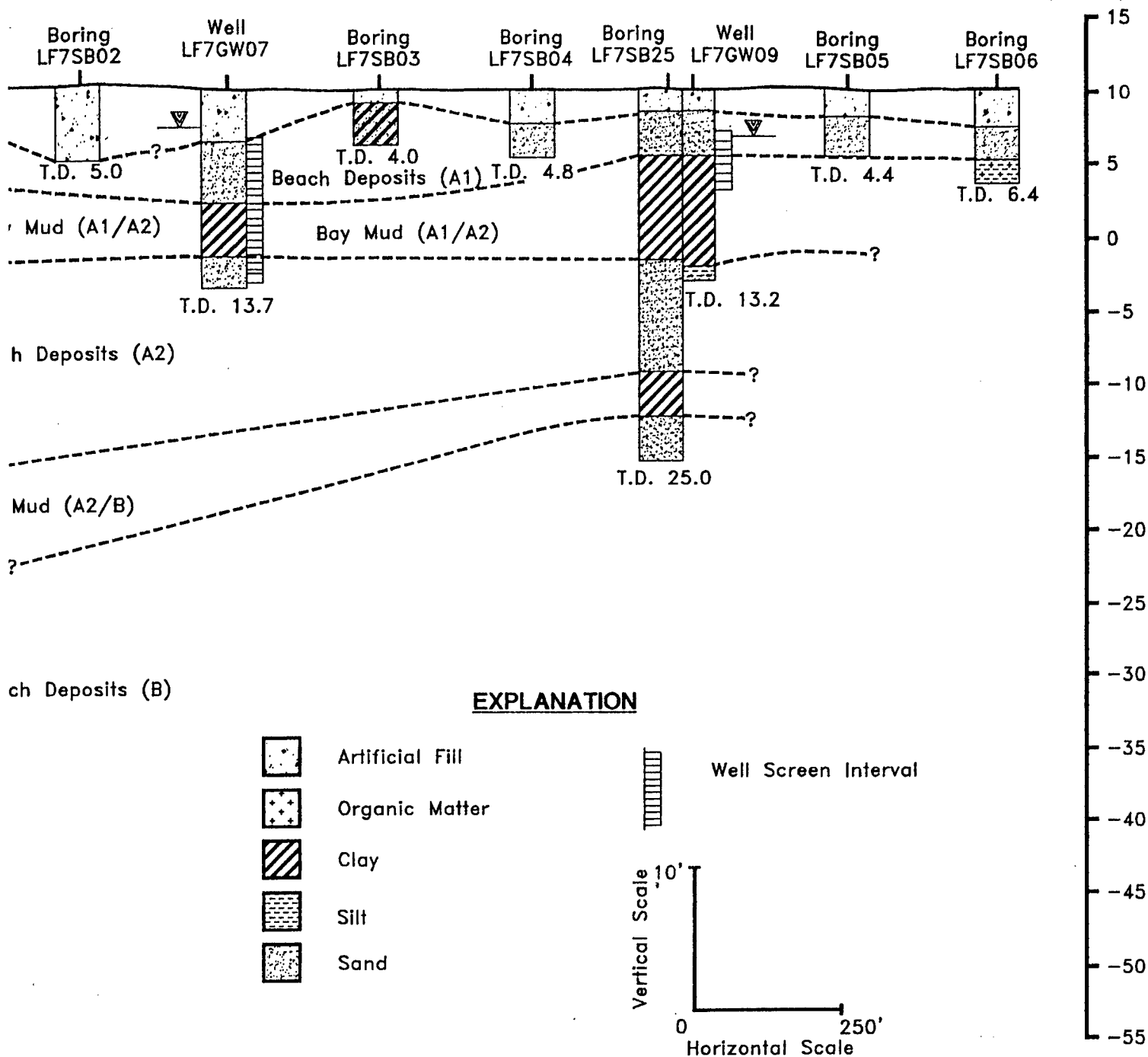




2

B'  
East

Elevation  
(ft-PLL)



(A1/A2) Montgomery Watson Hydrostratigraphic Unit Designation

--- Contact, dashed where inferred

▽ Water level (3/16/95, 0955-1023 PST  
High Tide: 1050 PST, 5.4 ft-mll)

T.D. Total Depth (ft bgs)

ft-PLL feet-Presidio Lower Low Water

**DAMES**

**CRISSY FIELD  
CROSS SI**

PSF25041/DV1

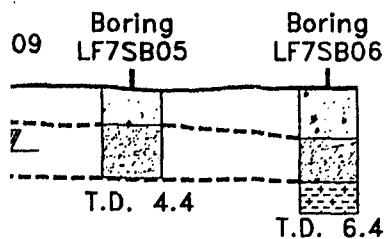
Date: January 1997



**B'**  
**East**

Elevation  
(ft-PLL)

3



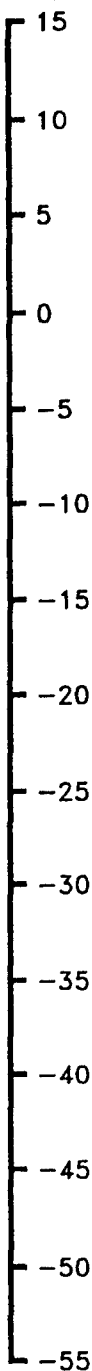
3.2

?

?

Screen Interval

250'  
Horizontal Scale



**DAMES & MOORE**

**CRISSY FIELD STUDY AREA  
CROSS SECTION B-B'**

PSF25041/DV1

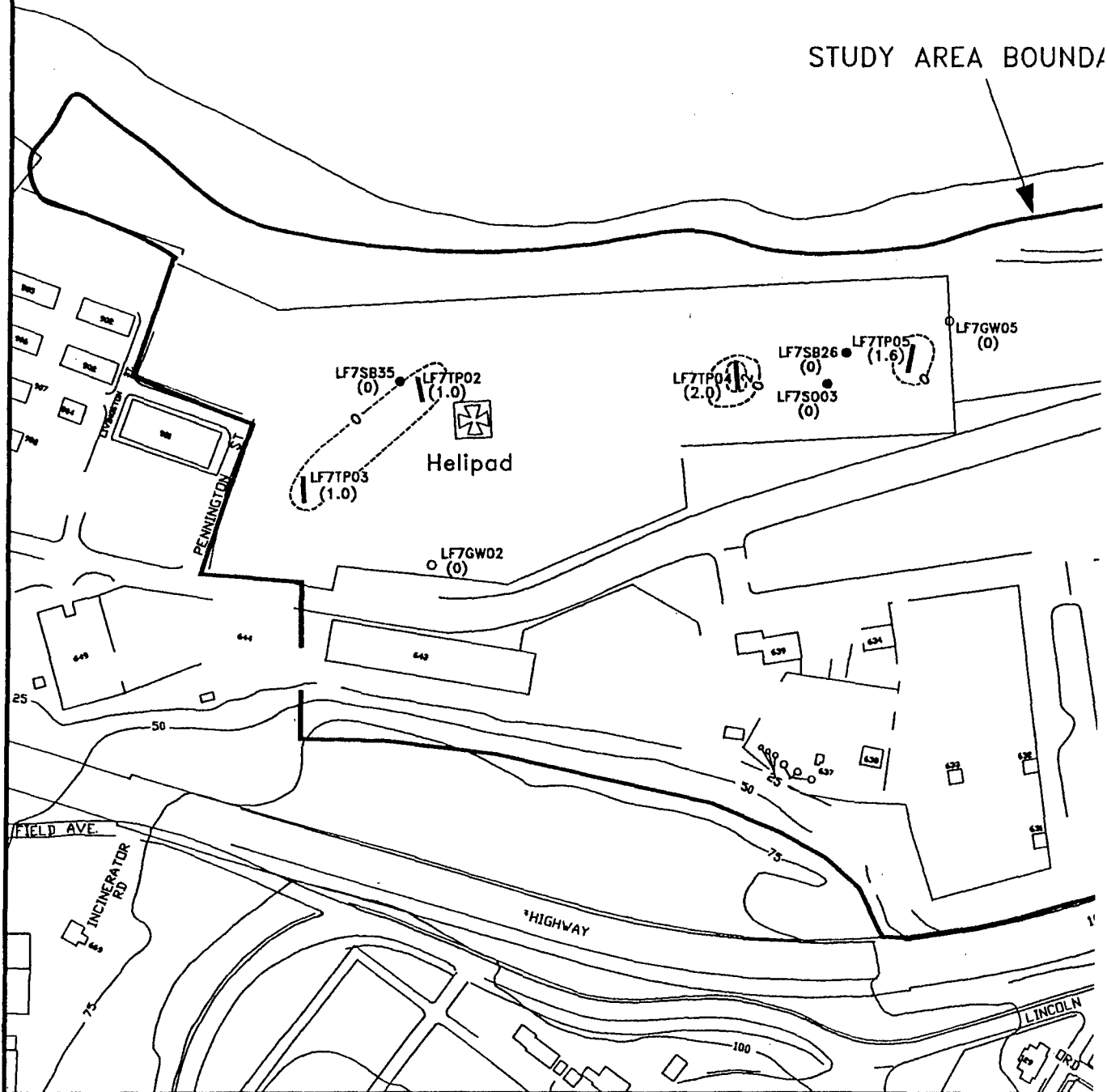
Date: January 1997

Figure 5.3-2



# SAN FRANCISCO BAY

STUDY AREA BOUNDARY



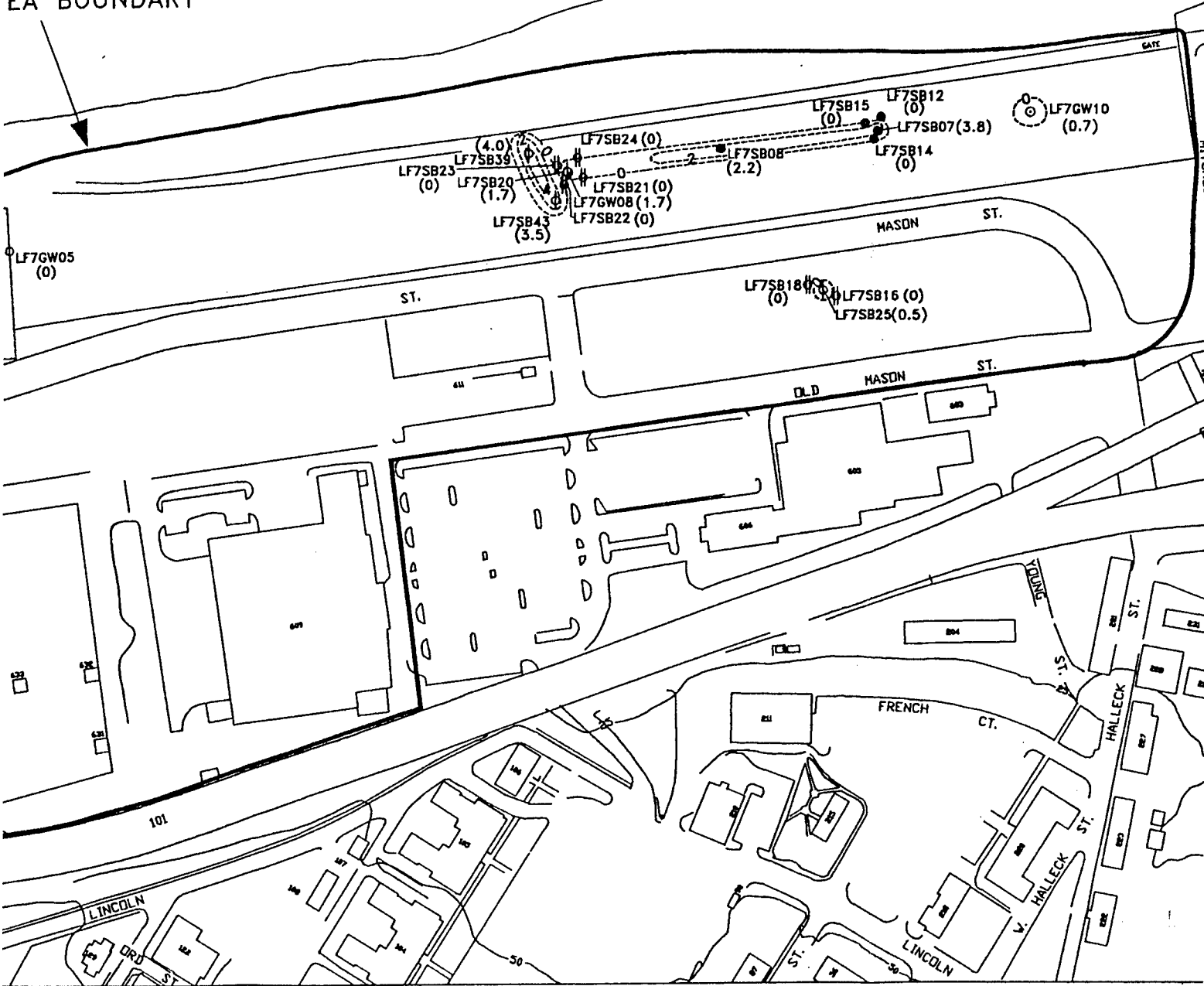
## EXPLANATION

/	TEST PIT	φ	DISCRETE GROUNDWATER SAMPLE	--- 1.0 ---	DEBRIS FILL THICKNESS
•	SOIL BORING	○	MONITORING WELL	— 100 —	TOPOGRAPHY
⊕	SOIL BORING WITH DISCRETE GROUNDWATER SAMPLE	⊕	MONITORING WELL WITH SOIL SAMPLES		ELEVATION IN FEET

NOTE: DEBRIS FILL THICKNESS IS BASED ON LITHOLOGY LOGS IN APPENDIX C. ONLY BORINGS WITH DEBRIS FILL AND CLOSEST CONTROL POINT ARE SHOWN ON FIGURE ALL SOIL SAMPLE LOCATIONS ARE SHOWN ON FIGURE 5.1-2



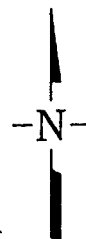
EA BOUNDARY



--1.0-- DEBRIS FILL THICKNESS CONTOUR  
DASHED WHERE INFERRED  
CONTOUR INTERVAL 2 FEET

—100— TOPOGRAPHIC CONTOUR  
CONTOUR INTERVAL 25 FEET

ELEVATIONS IN  
FEET—PRESIDIO LOWER LOW WATER

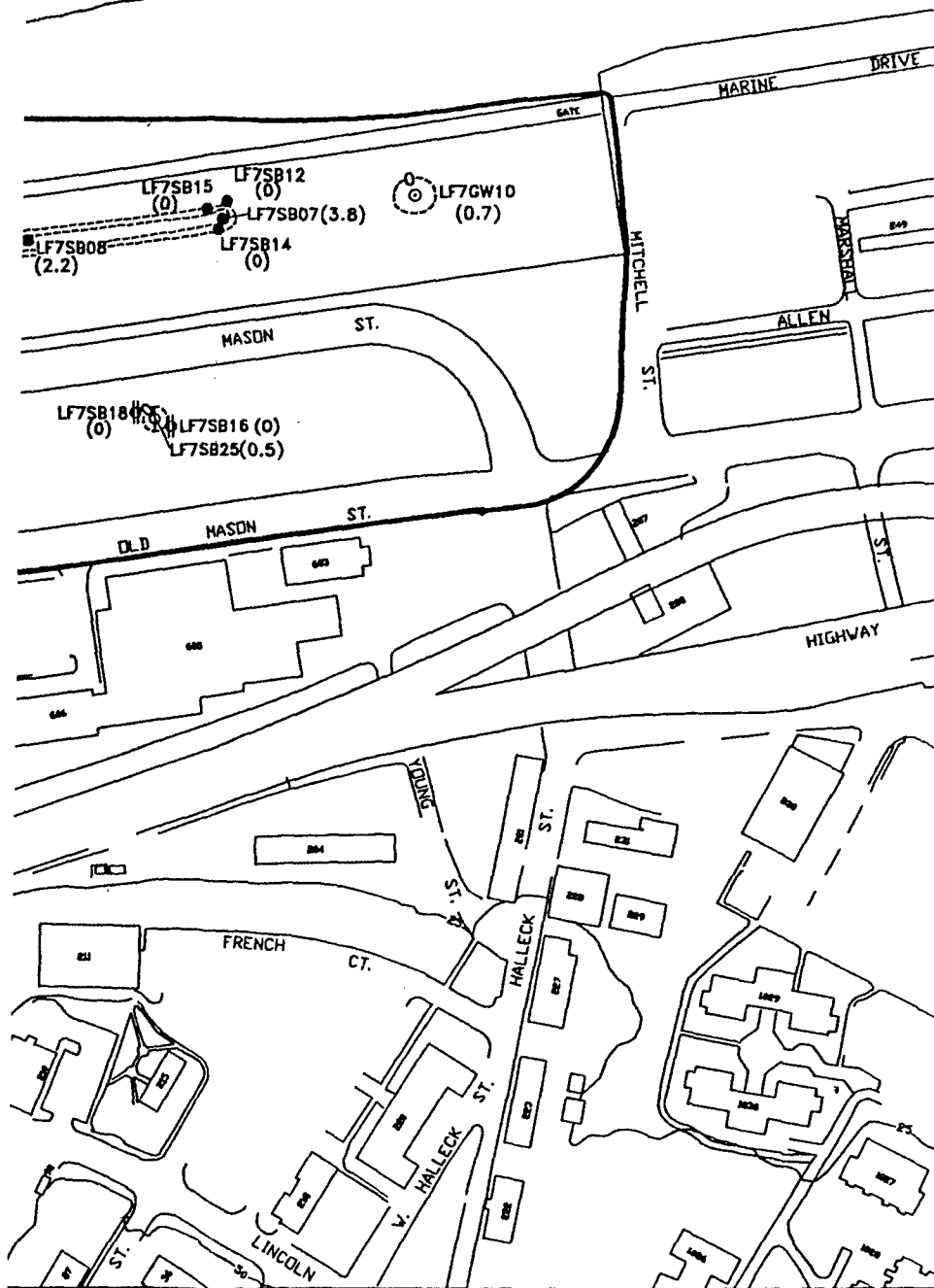


CRISSY FIELD  
DEBRIS FILL

PSF25058/DV1

Date: January 1997





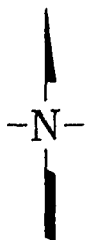
DAMES & MOORE

CRISSY FIELD STUDY AREA  
DEBRIS FILL ISOPACH

PSF25058/DV1

Date: January 1997

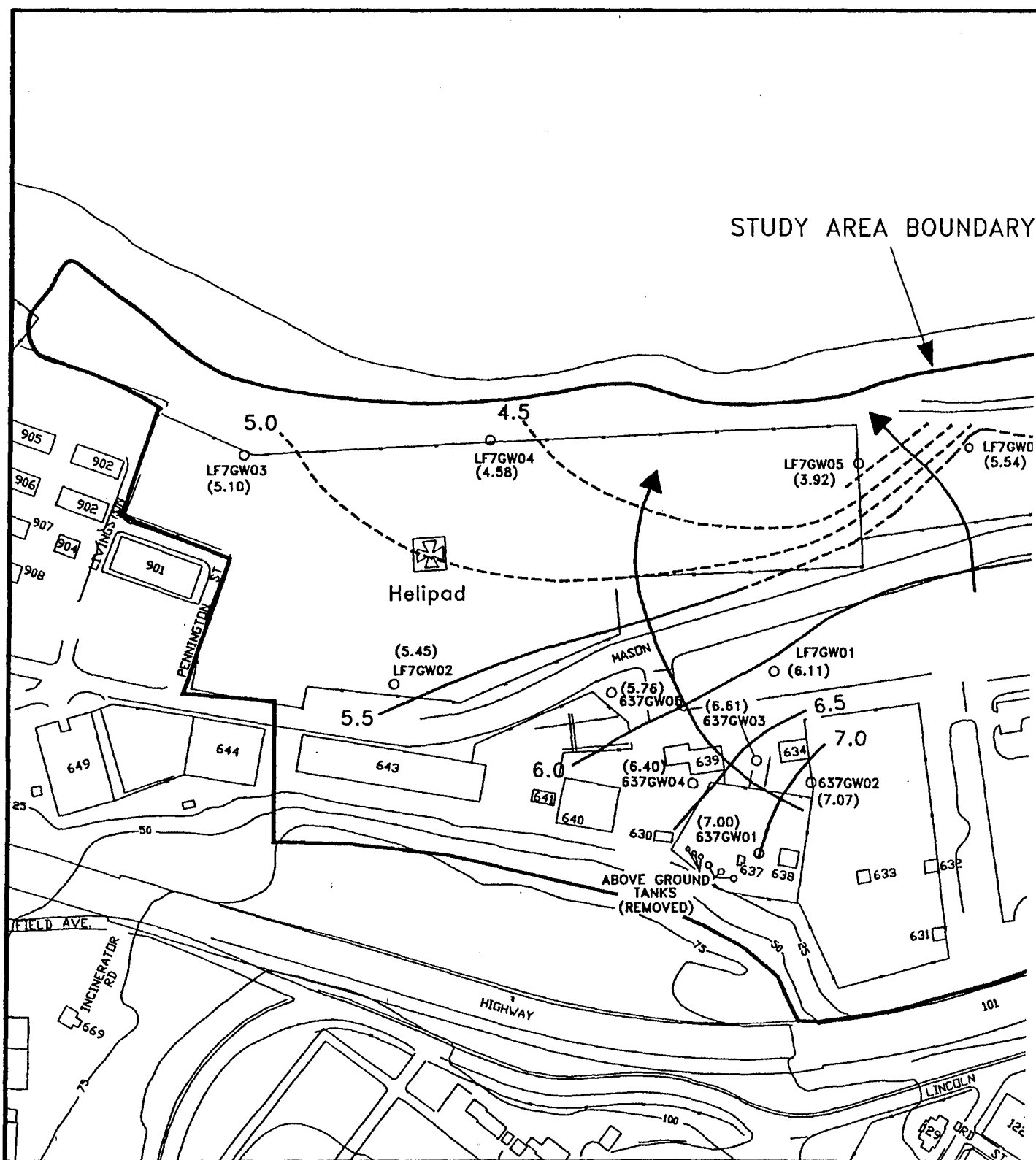
Figure 5.3-3



125 250

FEET





### EXPLANATION

- MONITORING WELL
- (5.45) POTENTIOMETRIC SURFACE ELEVATION
- EQUIPOTENTIAL CONTOUR (DASHED WHERE INFERRED) CONTOUR INTERVAL 0.5 FEET
- GROUNDWATER FLOW DIRECTION

—25— TOPOGRAPHIC CONTOUR  
INTERVAL 25 FEET

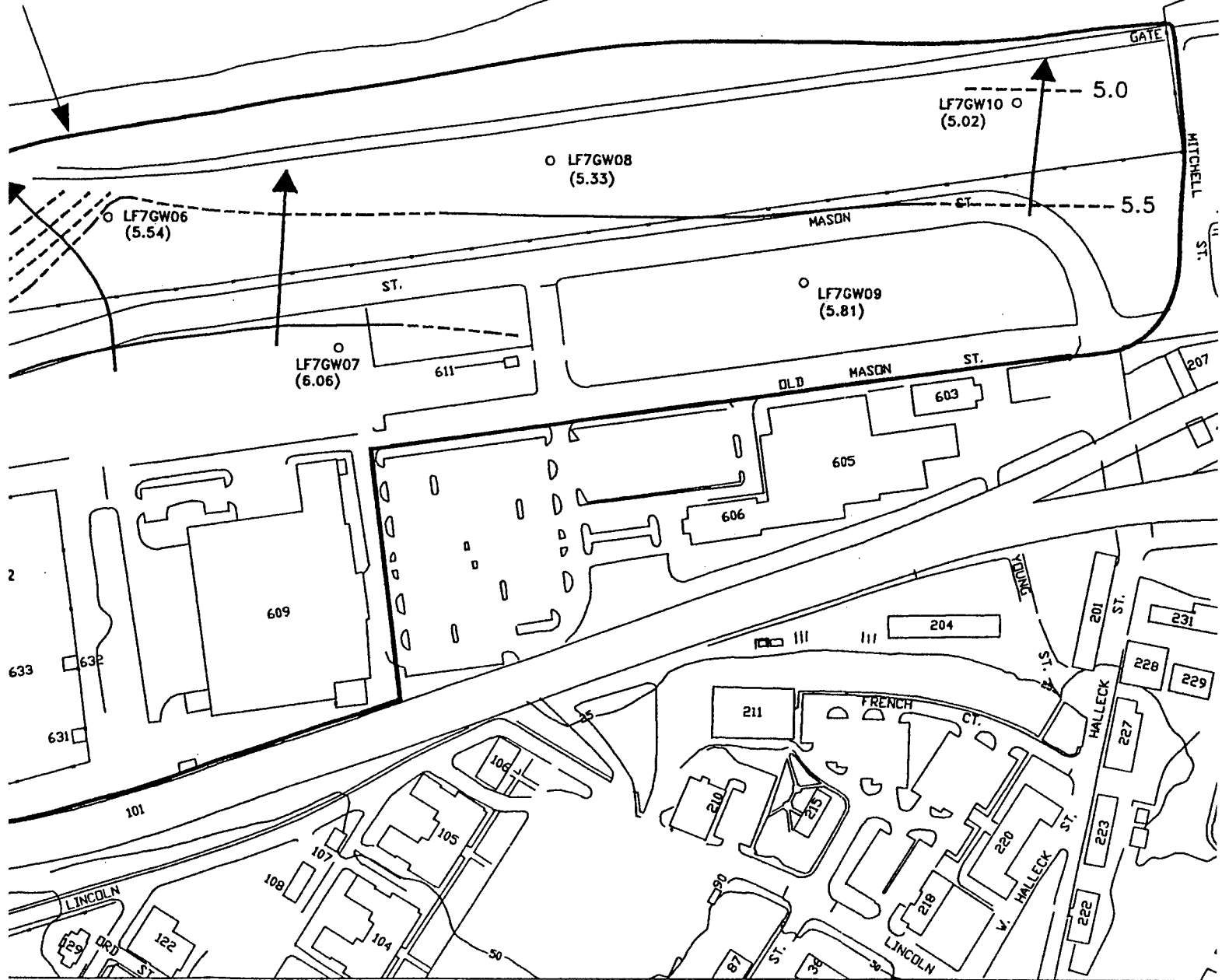
ELEVATIONS IN  
FEET—PRESIDIO LOWER LOW WATER

NOTE: WATER-LEVEL MEASUREMENTS TAKEN  
NOVEMBER 9, 1992, 1638–1732 PST  
LOW TIDE: 1638 PST, -0.4FT-PLLW



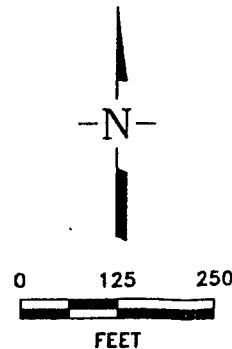
# SAN FRANCISCO BAY

A BOUNDARY



'S TAKEN  
1732 PST  
T-PLLW

2



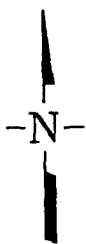
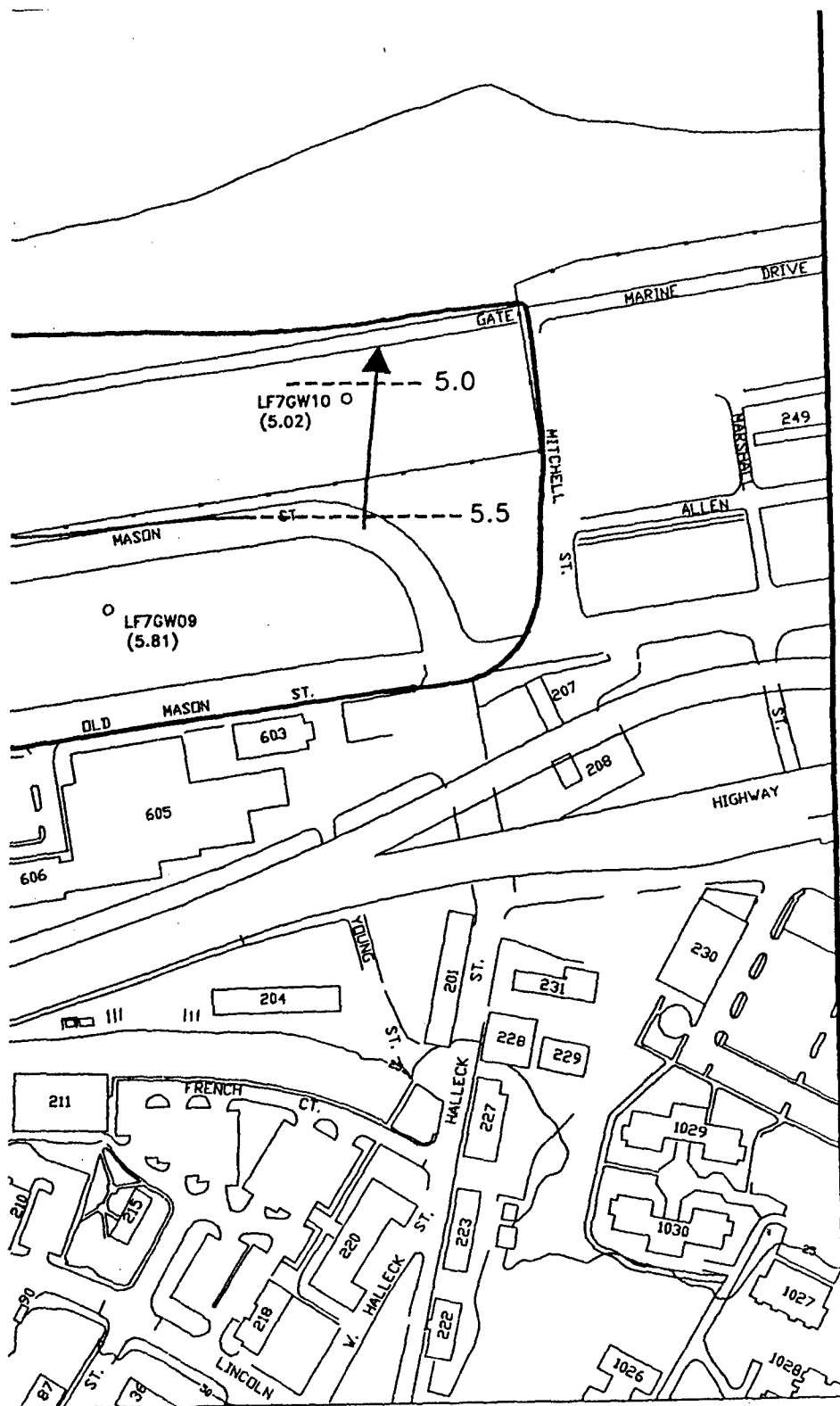
**DAMES &**

**CRISSY FIELD STU  
POTENTIOMETRIC SU  
LOW TIDE, NOVEI**

PSF25099/DV1

Date: January 1997 Fig





0 125 250  
FEET

3



**DAMES & MOORE**

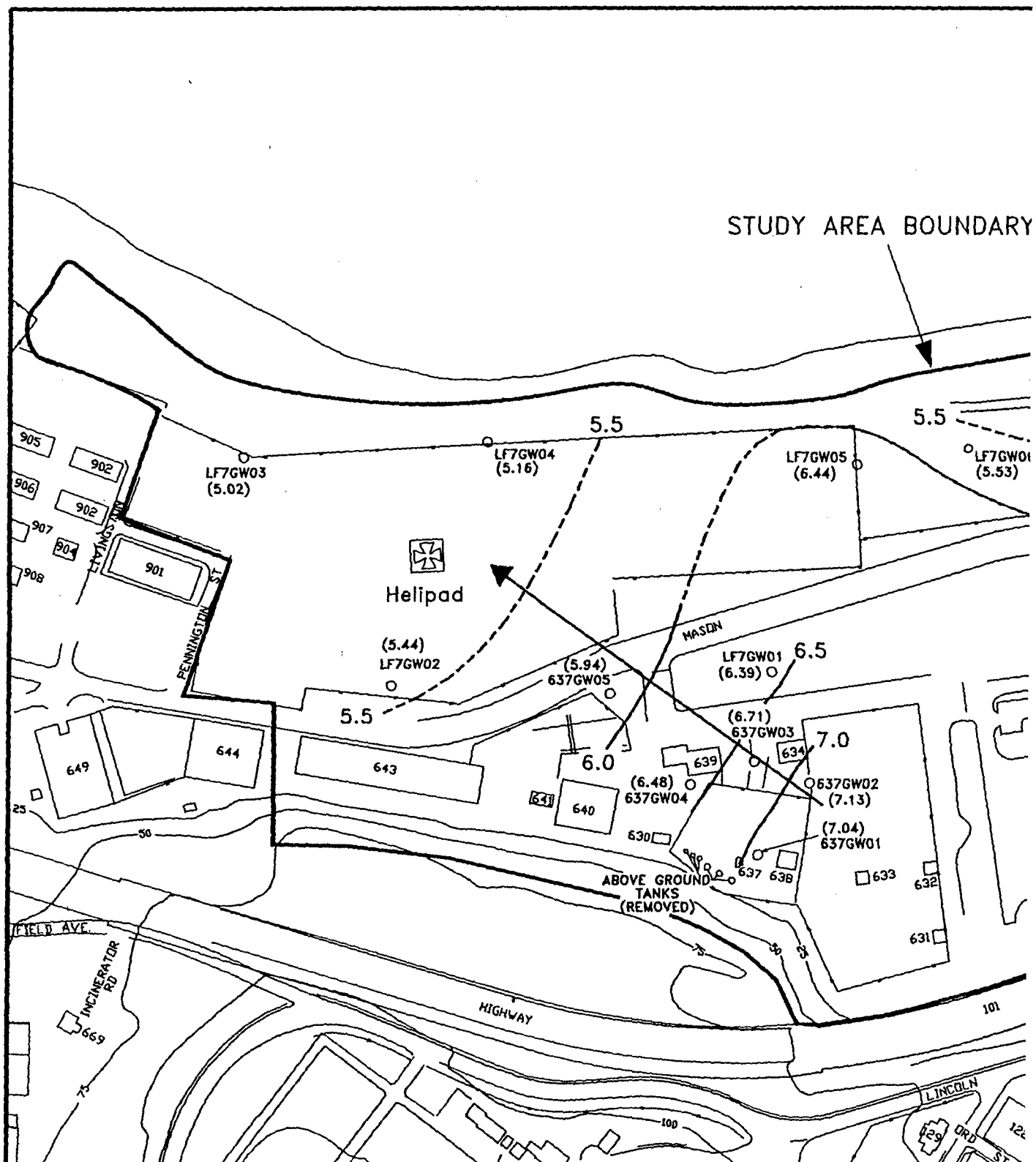
**CRISSY FIELD STUDY AREA  
POTENTIOMETRIC SURFACE MAP,  
LOW TIDE, NOVEMBER 1992**

PSF25089/DV1

Date: January 1997

Figure 5.3-4





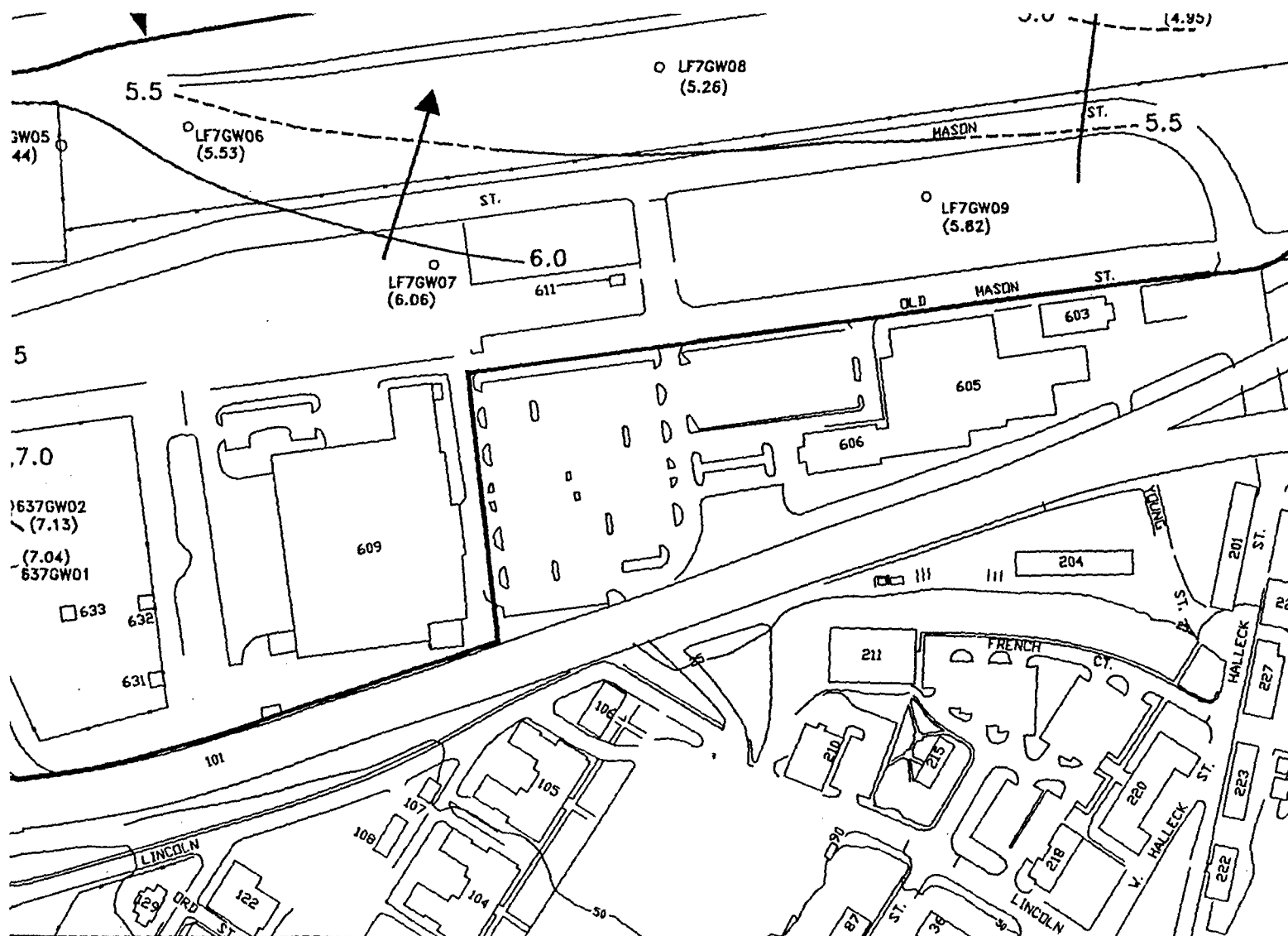
### EXPLANATION

- MONITORING WELL
- (5.44) POTENTIOMETRIC SURFACE ELEVATION
- EQUIPOTENTIAL CONTOUR (DASHED WHERE INFERRED) CONTOUR INTERVAL 0.5 FEET
- GROUNDWATER FLOW DIRECTION

——— TOPOGRAPHIC CONTOUR  
 INTERVAL 25 FEET  
 ELEVATIONS IN  
 FEET—PRESIDIO LOWER LOW WATER

NOTE: WATER-LEVEL MEASUREMENTS TAKEN  
 NOVEMBER 9, 1992, 0945–1032 PST,  
 HIGH TIDE: 1001 PST, 6.1 FT–PLLW

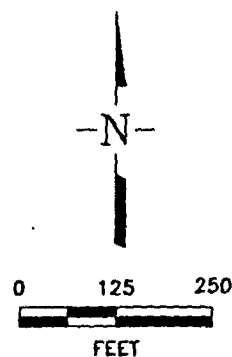




ATER

EMENTS TAKEN  
945-1032 PST,  
6.1 FT-PLLW

2

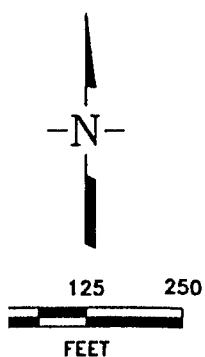
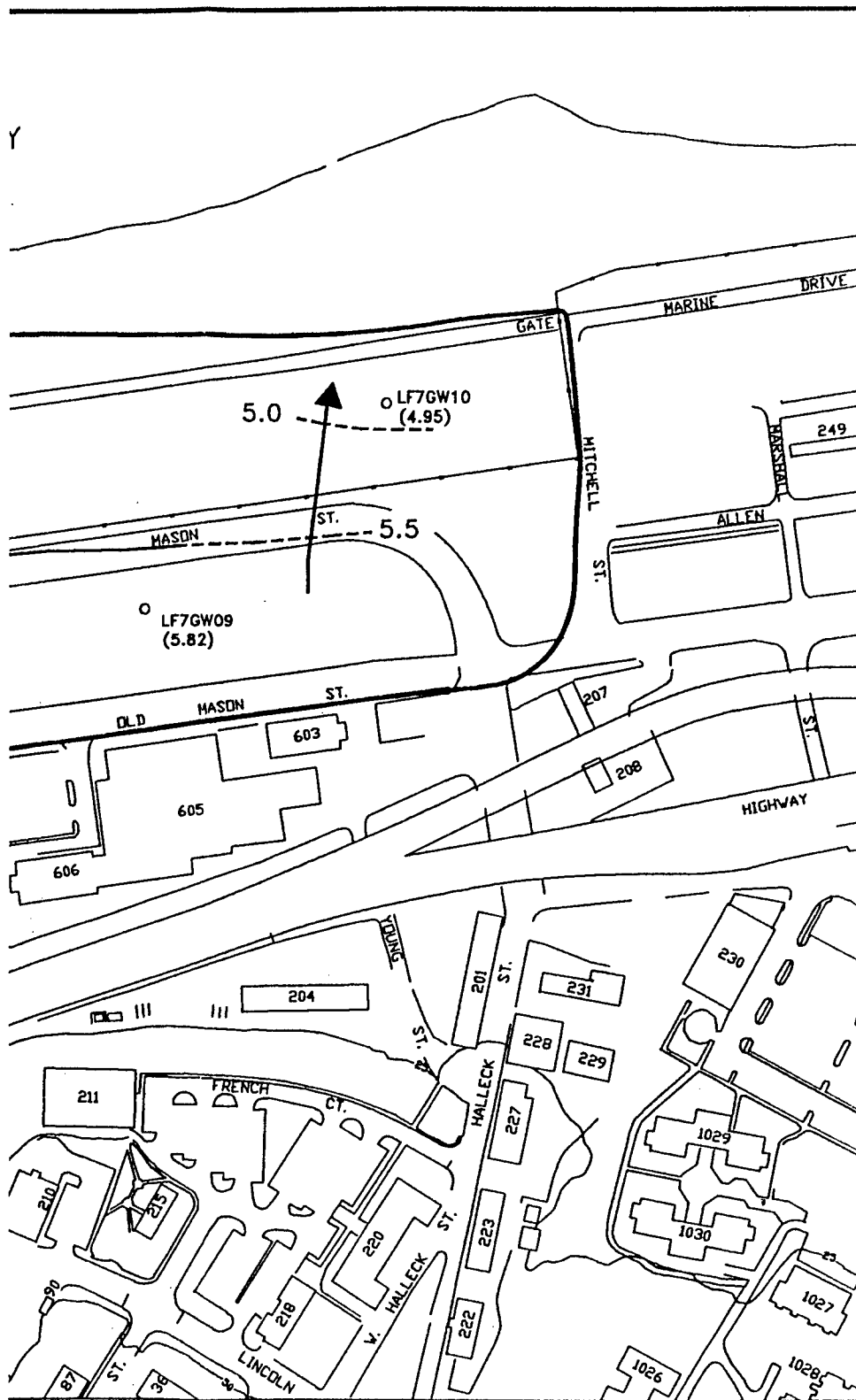


CRISSY FIELD  
POTENTIOMETRIC  
HIGH TIDE, M

PSF25100/DV1

Date: January 1997





**DAMES & MOORE**

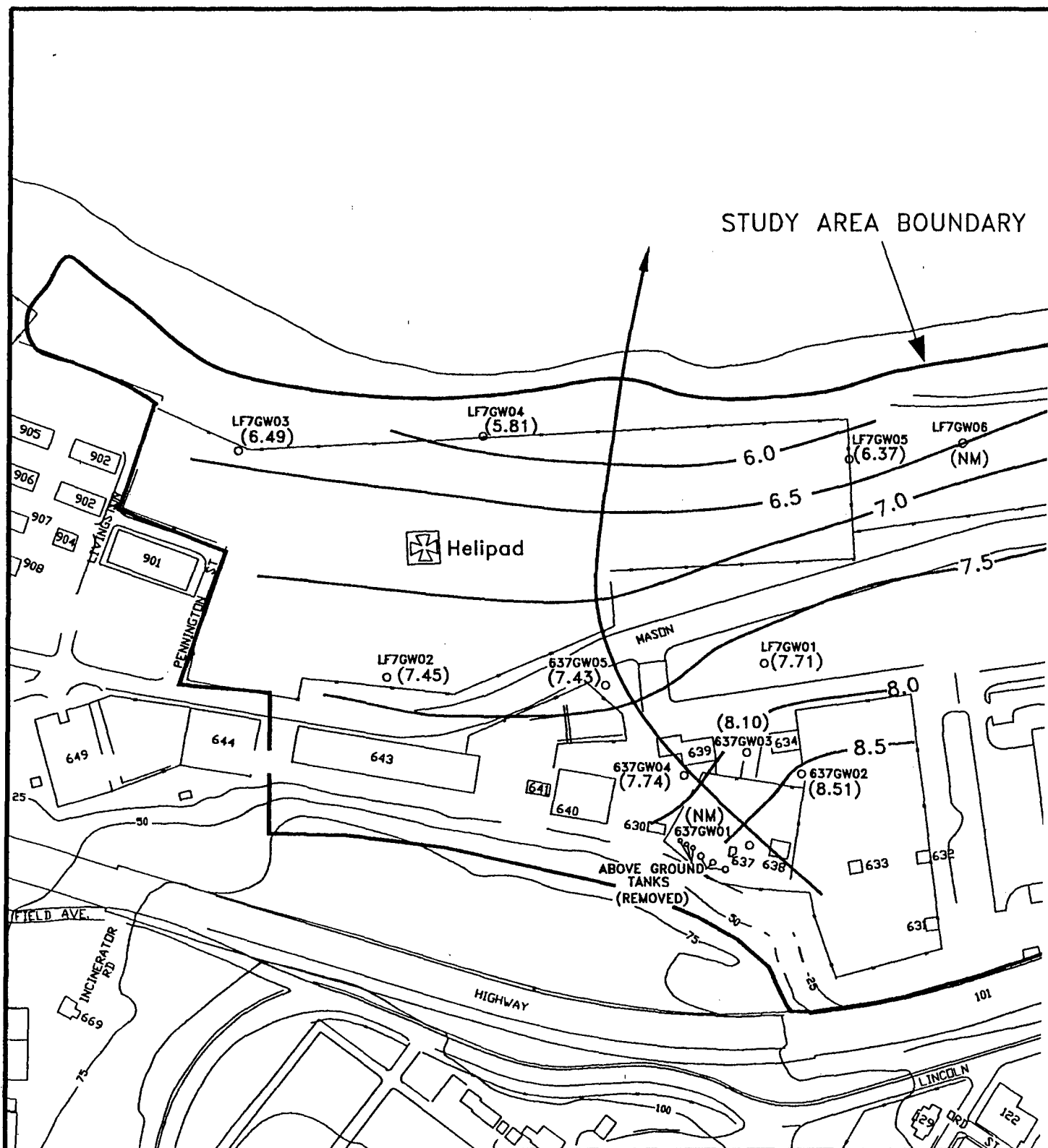
**CRISSY FIELD STUDY AREA  
POTENTIOMETRIC SURFACE MAP,  
HIGH TIDE, NOVEMBER 1992**

PSF25100/DV1

Date: January 1997

Figure 5.3-5





# **EXPLANATION**

- MONITORING WELL
- ⊙ MONITORING WELL WITH SOIL SAMPLES

(6.49) POTENTIOMETRIC SURFACE ELEVATION  
NM = NOT MEASURED

—6.0— EQUIPOTENTIAL CONTOURS  
CONTOUR INTERVAL 0.5 FEET

- GROUNDWATER FLOW DIRECTION
- 100— TOPOGRAPHIC CONTOUR

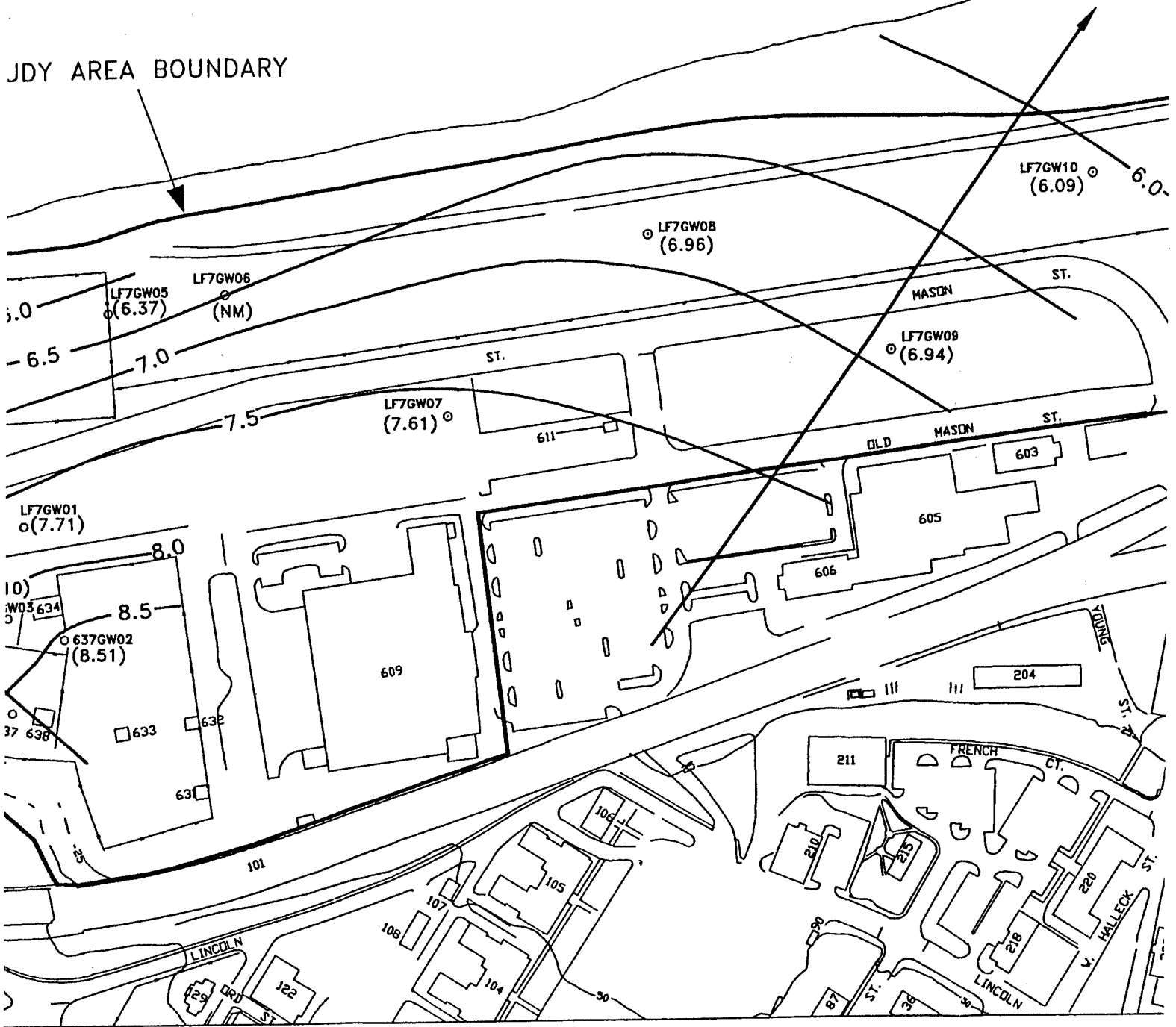
CONTOUR INTERVAL 25 FEET

ELEVATIONS IN  
FEET—PRESIDIO LOWER LOW WATER



# SAN FRANCISCO BAY

JDY AREA BOUNDARY



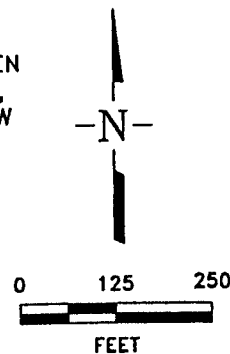
JNDWATER FLOW DIRECTION

JGRAPHIC CONTOUR

TOUR INTERVAL 25 FEET

/ATIONS IN  
[-PRESIDIO LOWER LOW WATER

NOTE: WATER-LEVEL MEASUREMENTS TAKEN  
MARCH 16, 1995, 0955-1023 PST,  
HIGH TIDE: 1050 PST, 5.4 FT-PLLW



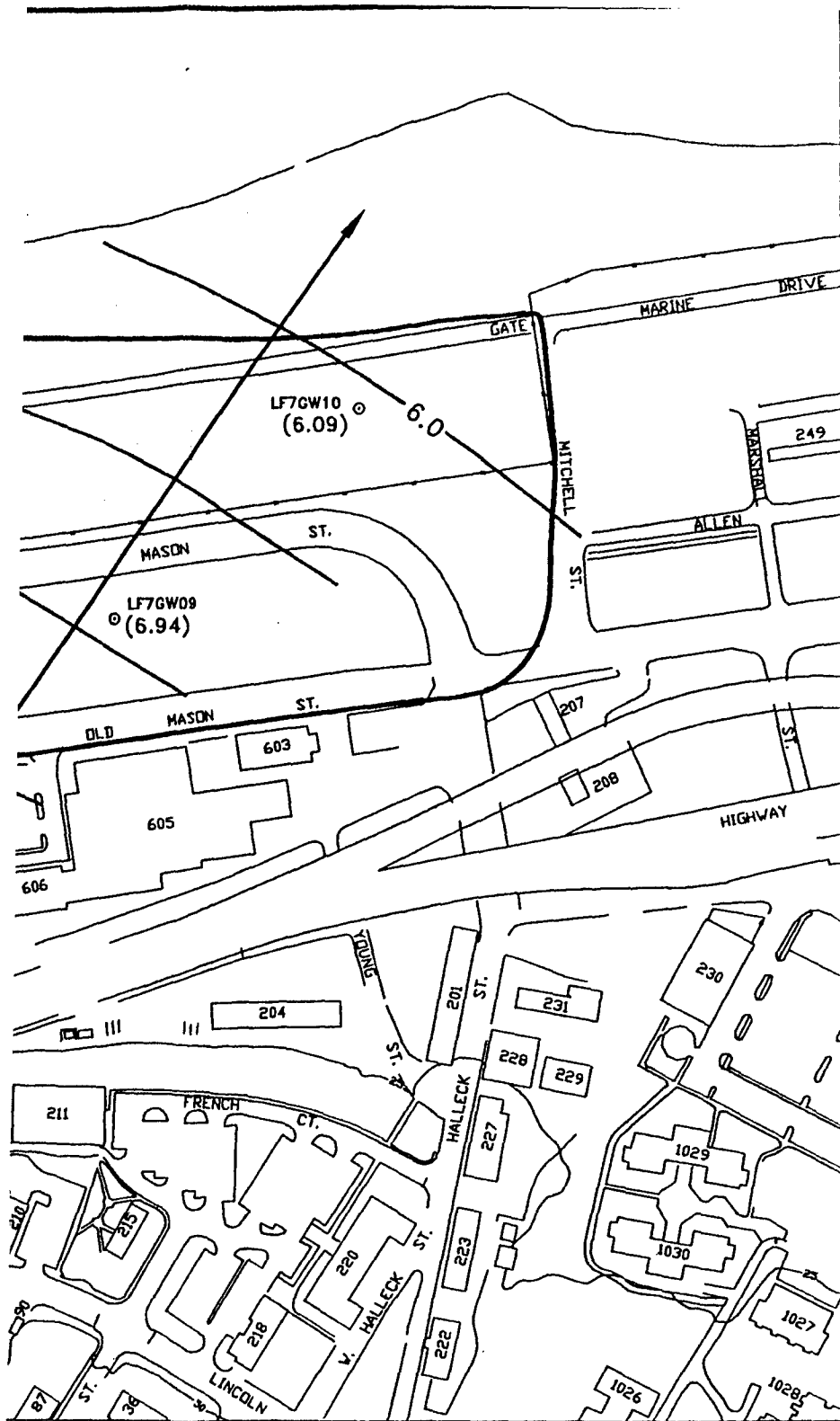
CRISI  
POTENT  
HIG

PSF25065/DV1

Date: Januar

2





**DAMES & MOORE**

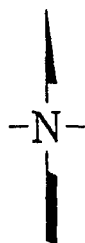
**CRISSY FIELD STUDY AREA  
POTENTIOMETRIC SURFACE MAP  
HIGH TIDE, MARCH 1995**

PSF25065/DV1

Date: January 1997

Figure 5.3-6

3

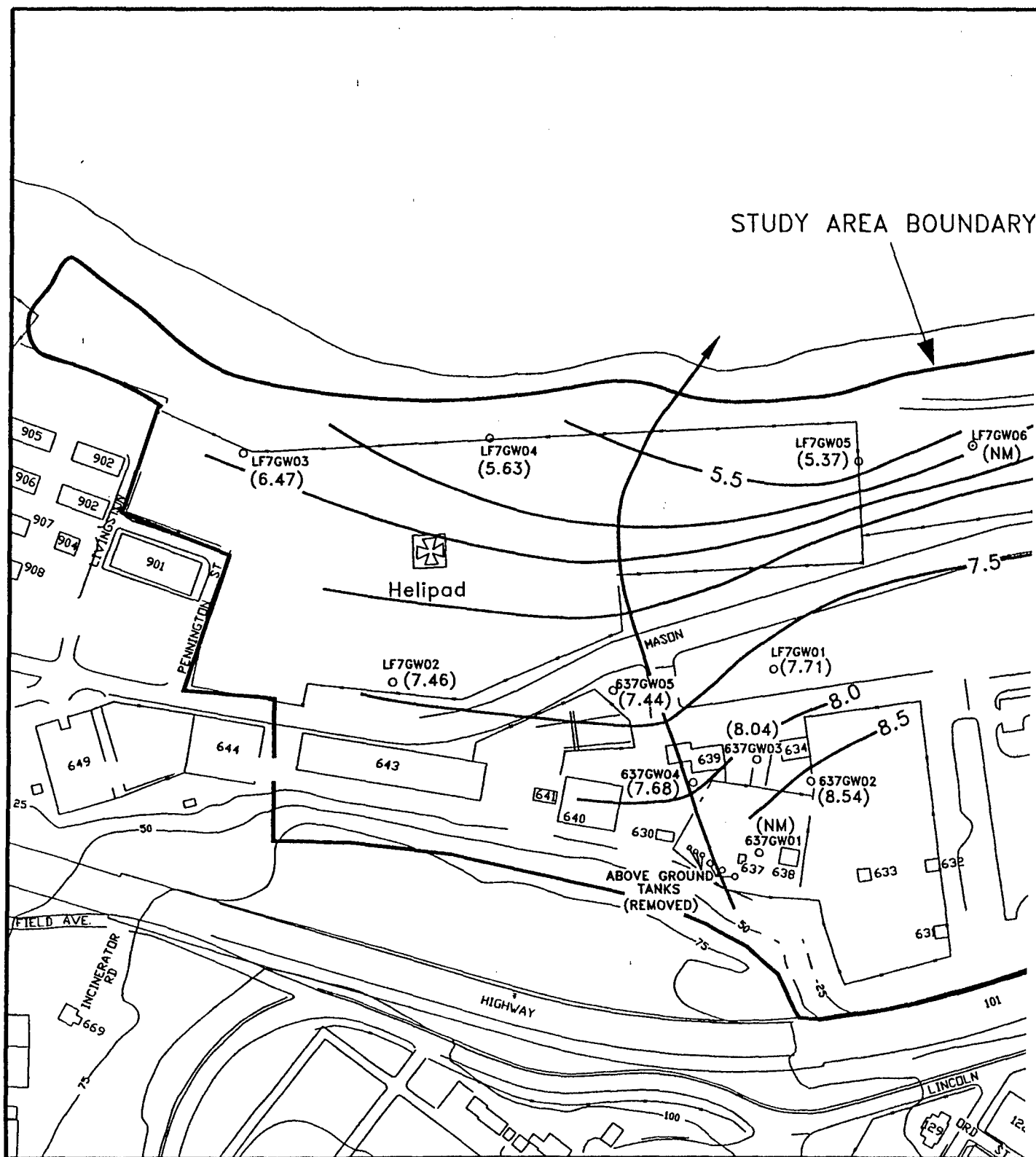


125 250



FEET





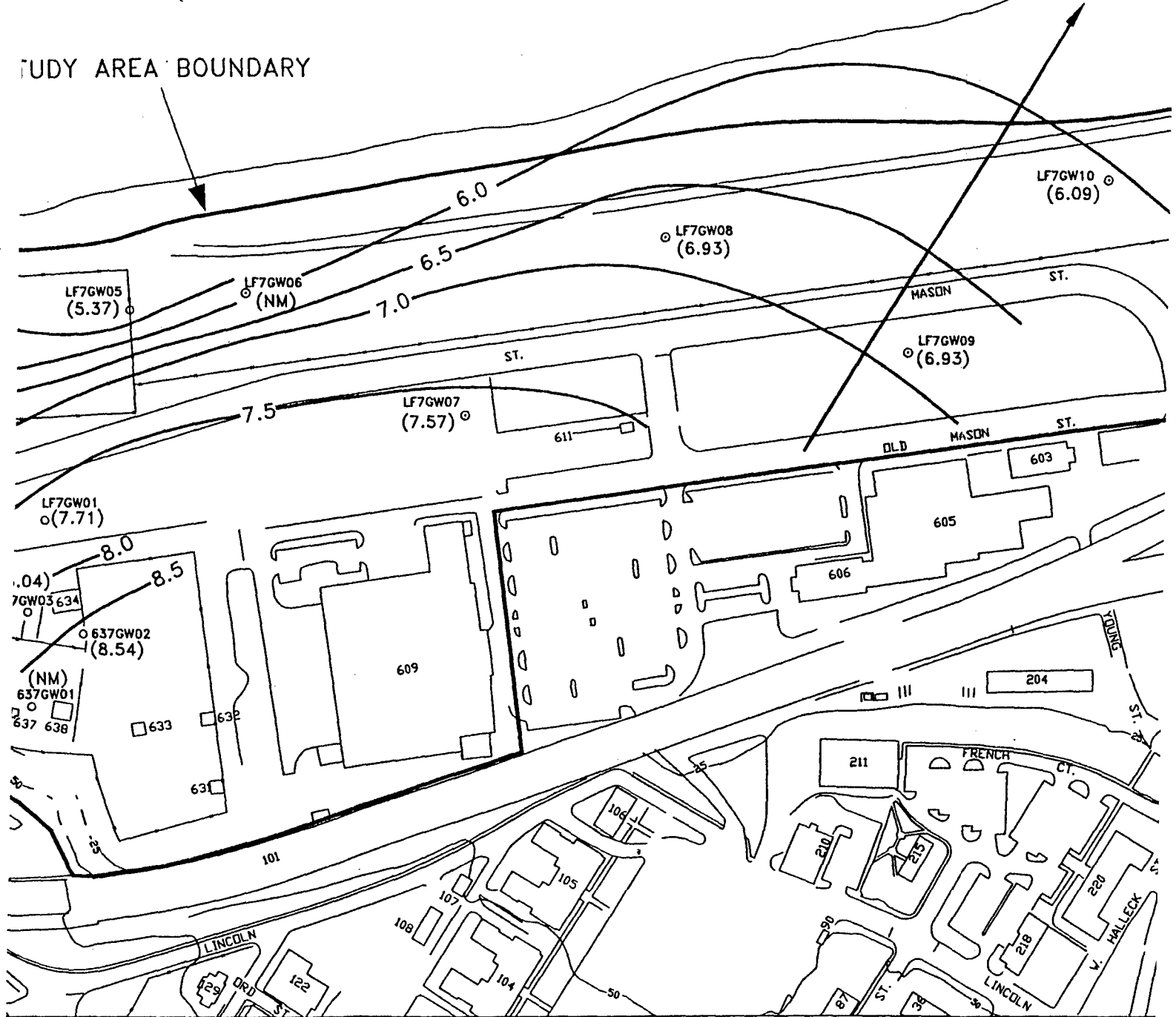
### EXPLANATION

- |        |                                   |  |   |
|--------|-----------------------------------|--|---|
| ○      | MONITORING WELL                   |  | GROUNDWATER FLOW DIRECTION                  |
| ⊙      | MONITORING WELL WITH SOIL SAMPLES |  | TOPOGRAPHIC CONTOUR                         |
| (6.09) | POTENTIOMETRIC SURFACE ELEVATION  |  | CONTOUR INTERVAL 25 FEET                    |
| NM     | = NOT MEASURED                    |  | ELEVATIONS IN FEET—PRESIDIO LOWER LOW WATER |
|        | EQUIPOTENTIAL CONTOURS            |  |   |
|        | CONTOUR INTERVAL 0.5 FEET         |  |   |



# SAN FRANCISCO BAY

STUDY AREA BOUNDARY



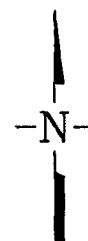
GUNDRWATER FLOW DIRECTION

POGRAPHIC CONTOUR

NTOUR INTERVAL 25 FEET

EVATIONS IN  
ET-PRESIDIO LOWER LOW WATER

NOTE: WATER-LEVEL MEASUREMENTS TAKEN  
MARCH 16, 1995, 1650-1740 PST  
LOW TIDE: 1650 PST, 0.2 FT-PLLW



0 125 250  
FEET



CRI  
POTEN  
LI

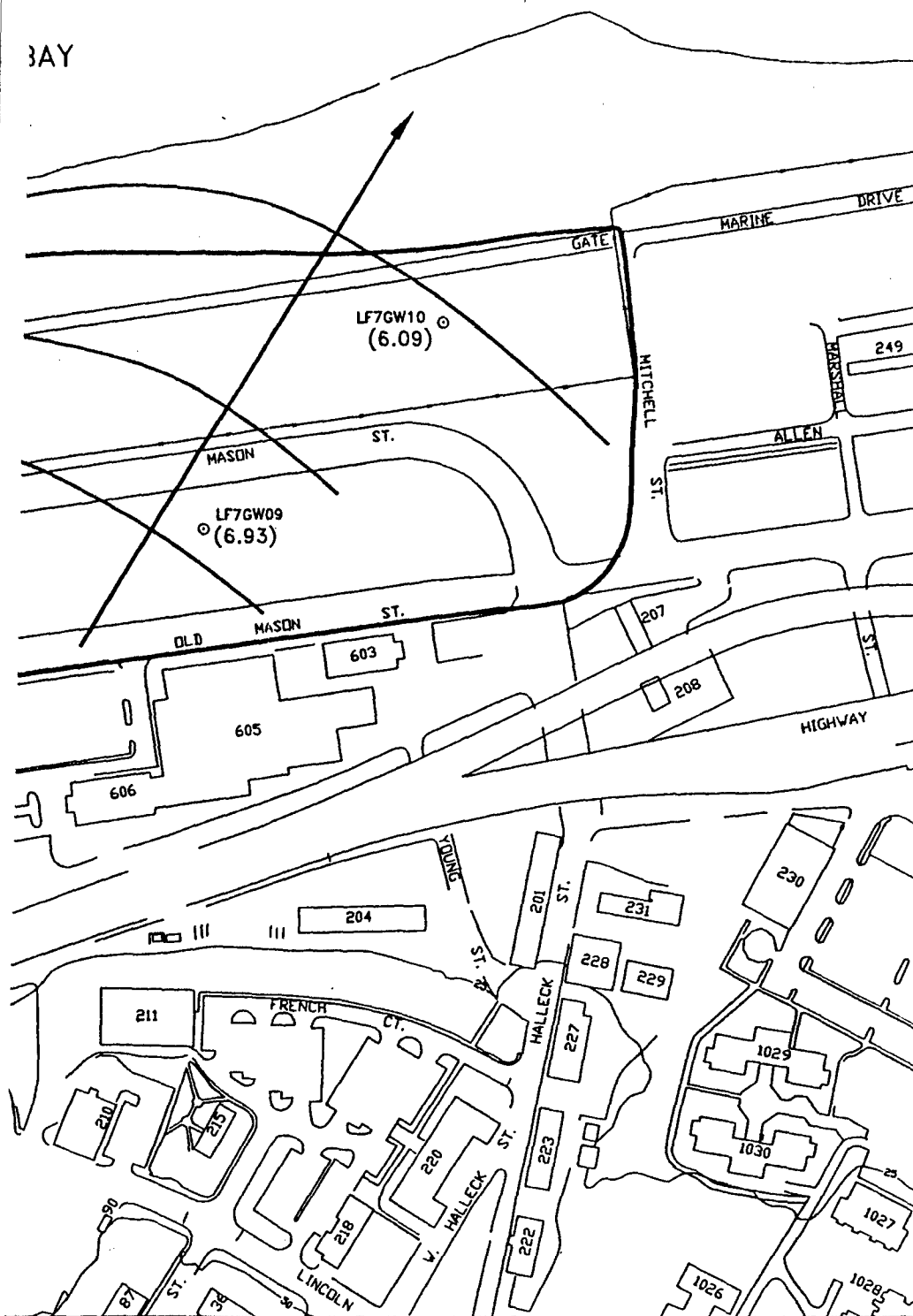
PSF25064/DV

Date: Januc

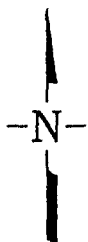
2



BAY



TAKEN  
PST  
PLW



0 125 250  
FEET



DAMES & MOORE

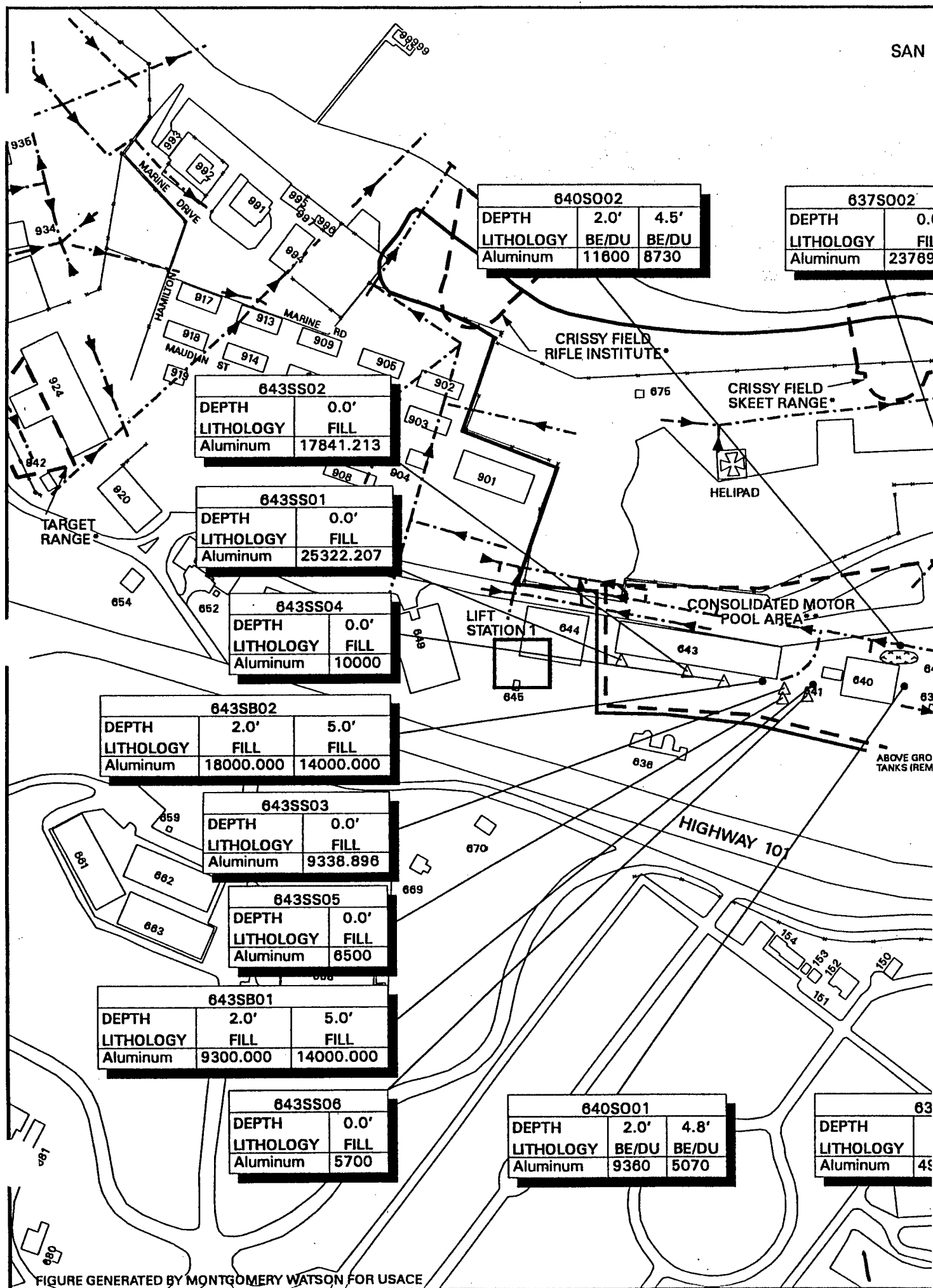
CRISSY FIELD STUDY AREA  
POTENTIOMETRIC SURFACE MAP  
LOW TIDE, MARCH 1995

PSF25064/DV2

Date: January 1997

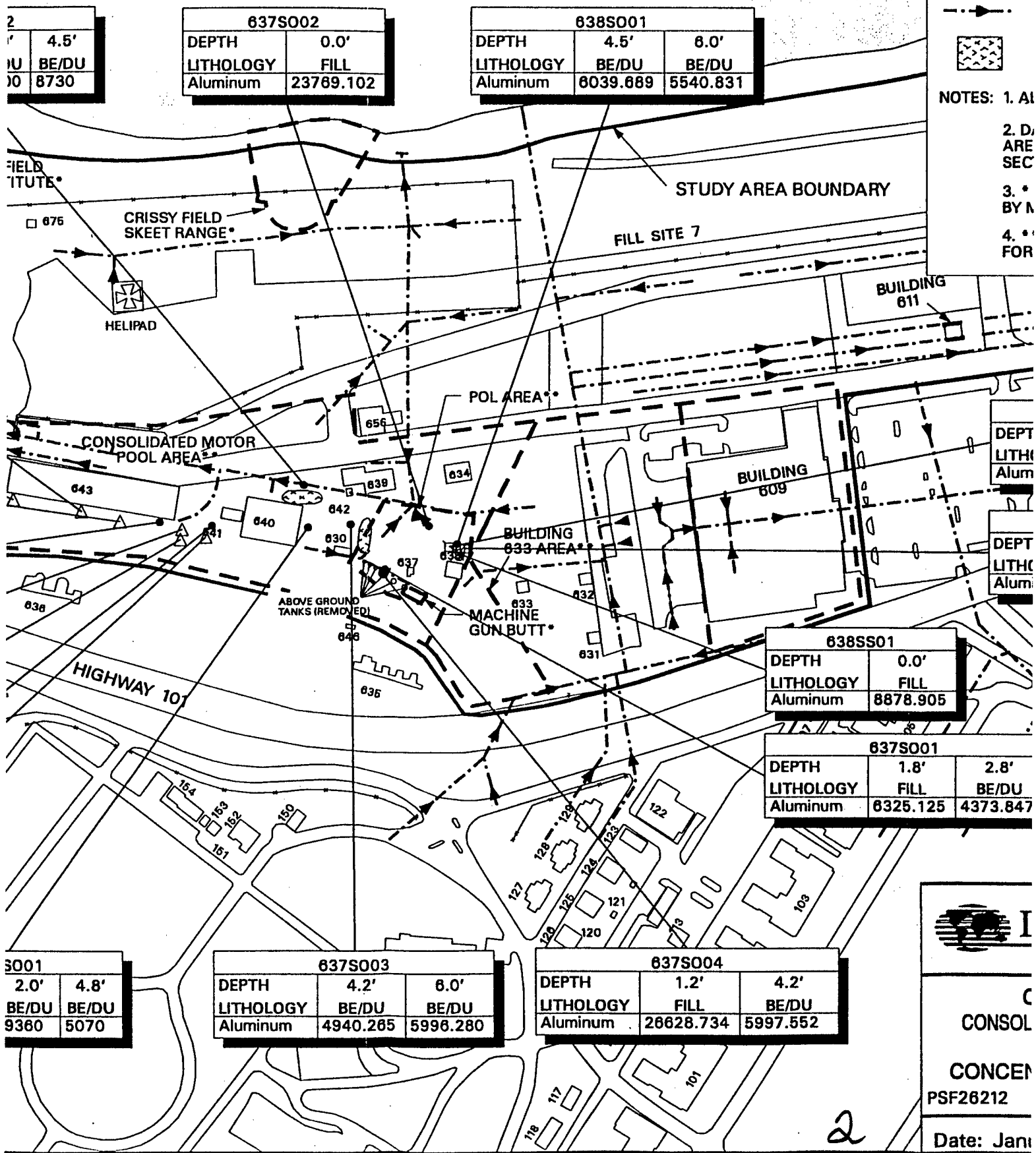
Figure 5.3-7












# SAN FRANCISCO BAY





### EXPLANATION

-  SEDIMENT SAMPLE FROM A PAVED SURFACE
-  SURFACE SOIL SAMPLE
-  SOIL BORING
-  STORM DRAIN WITH FLOW DIRECTION
-  STAINED AREAS

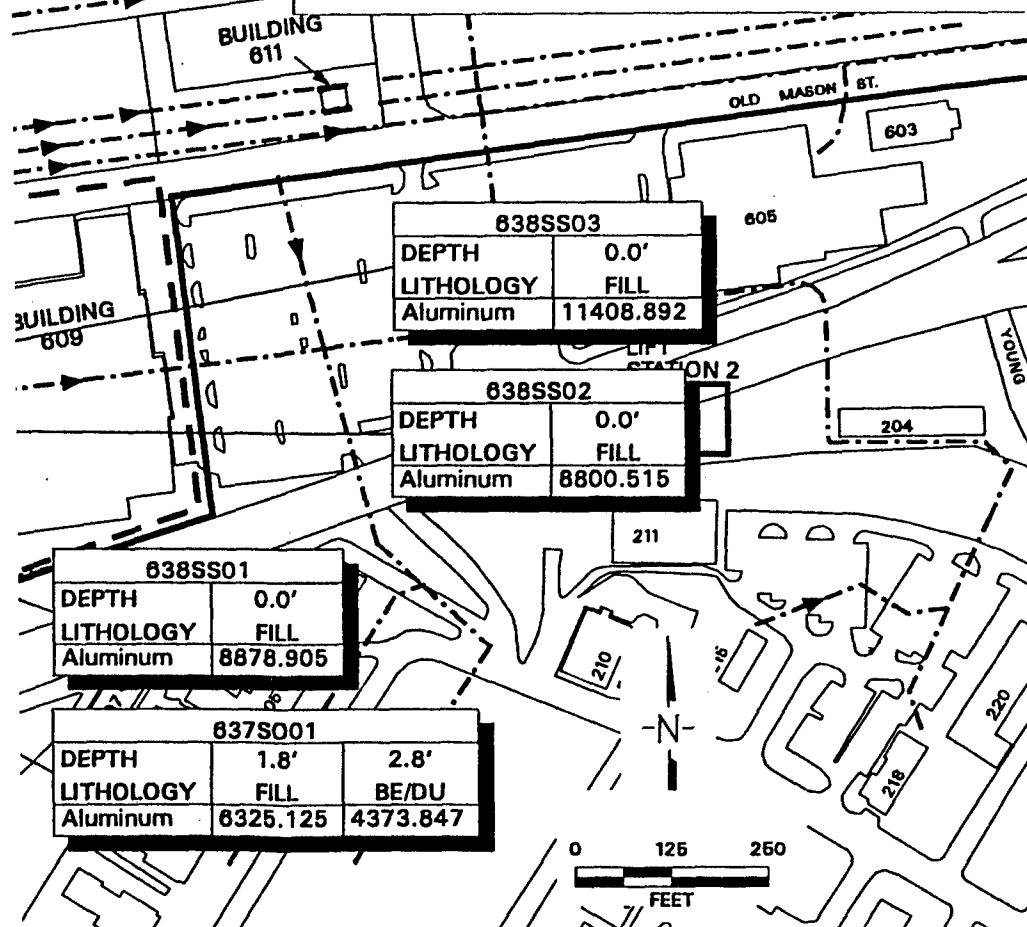
NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.

4. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.

AREA BOUNDARY



**DAMES & MOORE**

CRISSY FIELD STUDY AREA  
CONSOLIDATED MOTOR POOL AREA, POL AREA,  
AND BUILDINGS 609 AND 633  
CONCENTRATIONS OF ALUMINUM IN SOIL

PSF26212

Date: January 1997

Figure 5.5-1





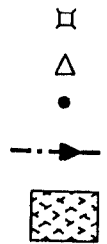


# SAN FRANCISCO BAY

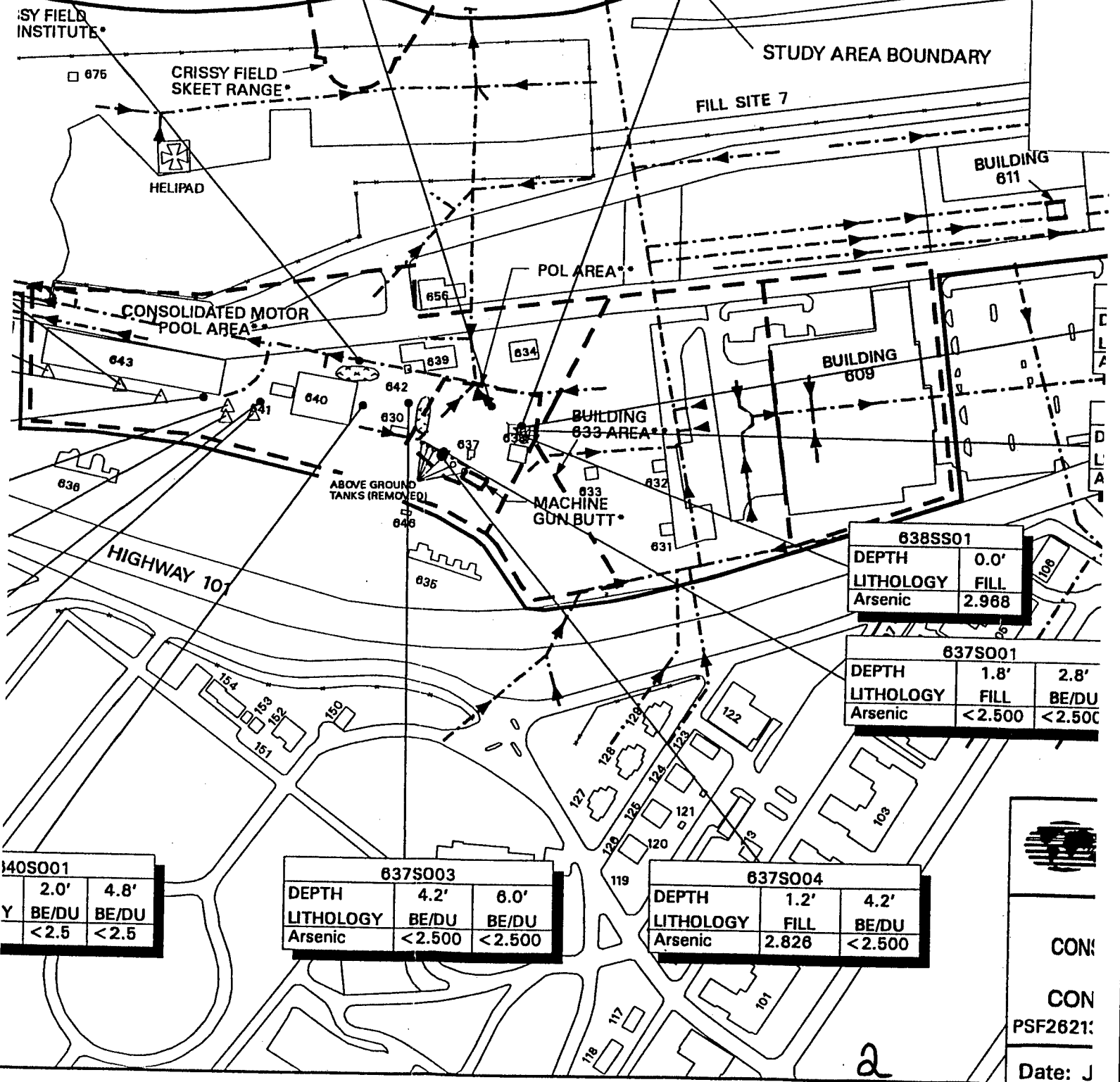
637S002	2.0'	4.5'
BE/DU	BE/DU	BE/DU
<2.5	<2.5	<2.5

637S002	0.0'
DEPTH	FILL
LITHOLOGY	Arsenic
<2.500	<2.500

638S001	4.5'	6.0'
DEPTH	BE/DU	BE/DU
LITHOLOGY	BE/DU	BE/DU
<2.500	<2.500	<2.500



NOTES:



640S001	2.0'	4.8'
BE/DU	BE/DU	BE/DU
<2.5	<2.5	<2.5

637S003	4.2'	6.0'
DEPTH	BE/DU	BE/DU
LITHOLOGY	BE/DU	BE/DU
<2.500	<2.500	<2.500

637S004	1.2'	4.2'
DEPTH	FILL	BE/DU
LITHOLOGY	FILL	BE/DU
<2.500	<2.500	<2.500

638SS01	0.0'
DEPTH	FILL
LITHOLOGY	Arsenic
<2.968	<2.968

637S001	1.8'	2.8'
DEPTH	FILL	BE/DU
LITHOLOGY	FILL	BE/DU
<2.500	<2.500	<2.500



CON

CON

PSF2621:

Date: J

2



### EXPLANATION

- ☒ SEDIMENT SAMPLE FROM A PAVED SURFACE
- △ SURFACE SOIL SAMPLE
- SOIL BORING
- > STORM DRAIN WITH FLOW DIRECTION
- ▨ STAINED AREAS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.

4. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.

BOUNDARY

BUILDING 611

OLD MASON ST.

603

606

638SS03

DEPTH	0.0'
LITHOLOGY	FILL
Arsenic	<2.500

638SS02

DEPTH	0.0'
LITHOLOGY	FILL
Arsenic	<2.500

638SS01

DEPTH	0.0'
LITHOLOGY	FILL
Arsenic	2.968

637S001

DEPTH	1.8'	2.8'
LITHOLOGY	FILL	BE/DU
Arsenic	<2.500	<2.500

211

210

204

YOUNG ST.

220

218

103

0 125 250  
FEET



**DAMES & MOORE**

CRISSY FIELD STUDY AREA  
CONSOLIDATED MOTOR POOL AREA, POL AREA,  
AND BUILDINGS 609 AND 633  
CONCENTRATIONS OF ARSENIC IN SOIL

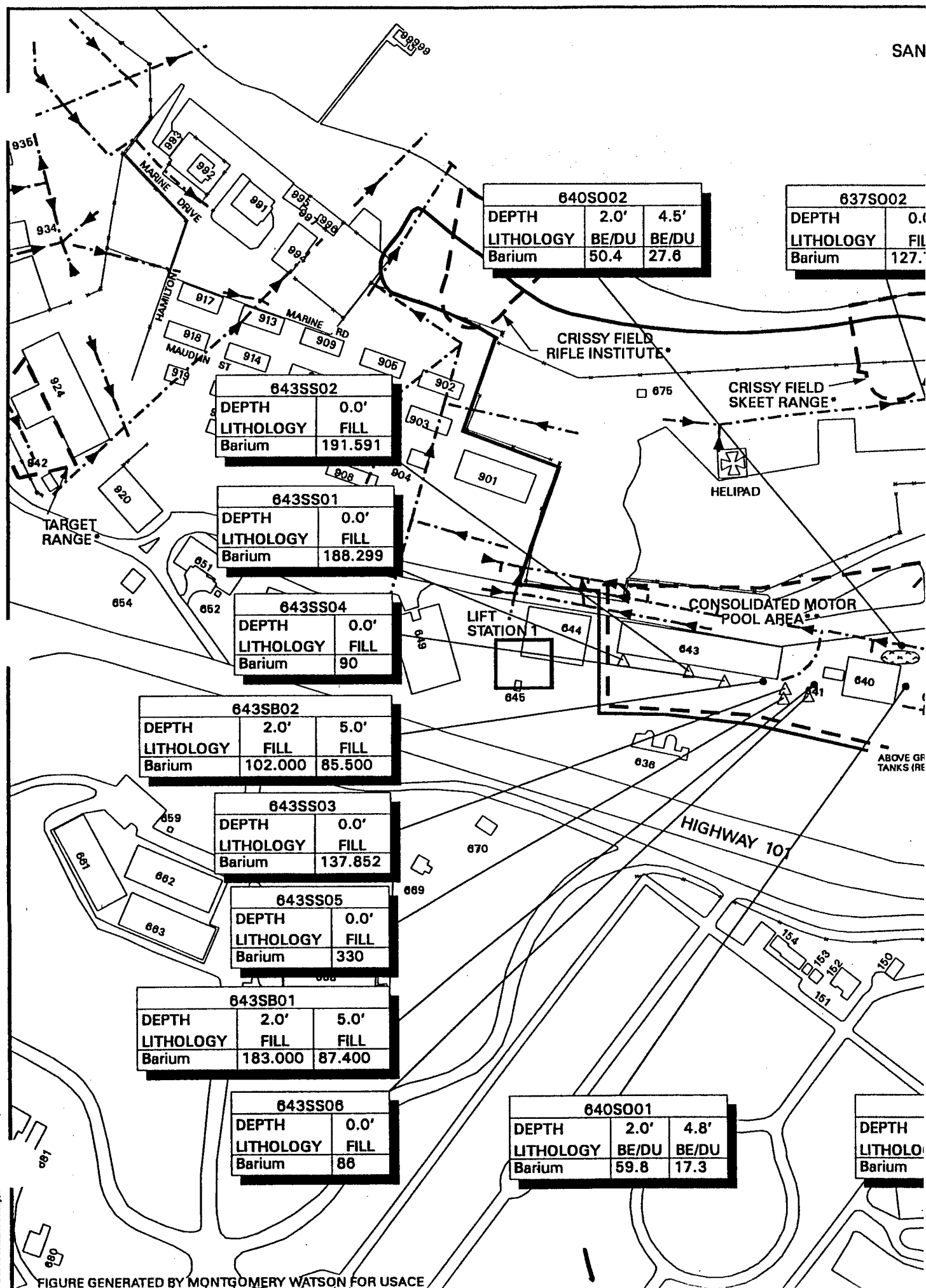
PSF26213

Date: January 1997

Figure 5.5-2

3







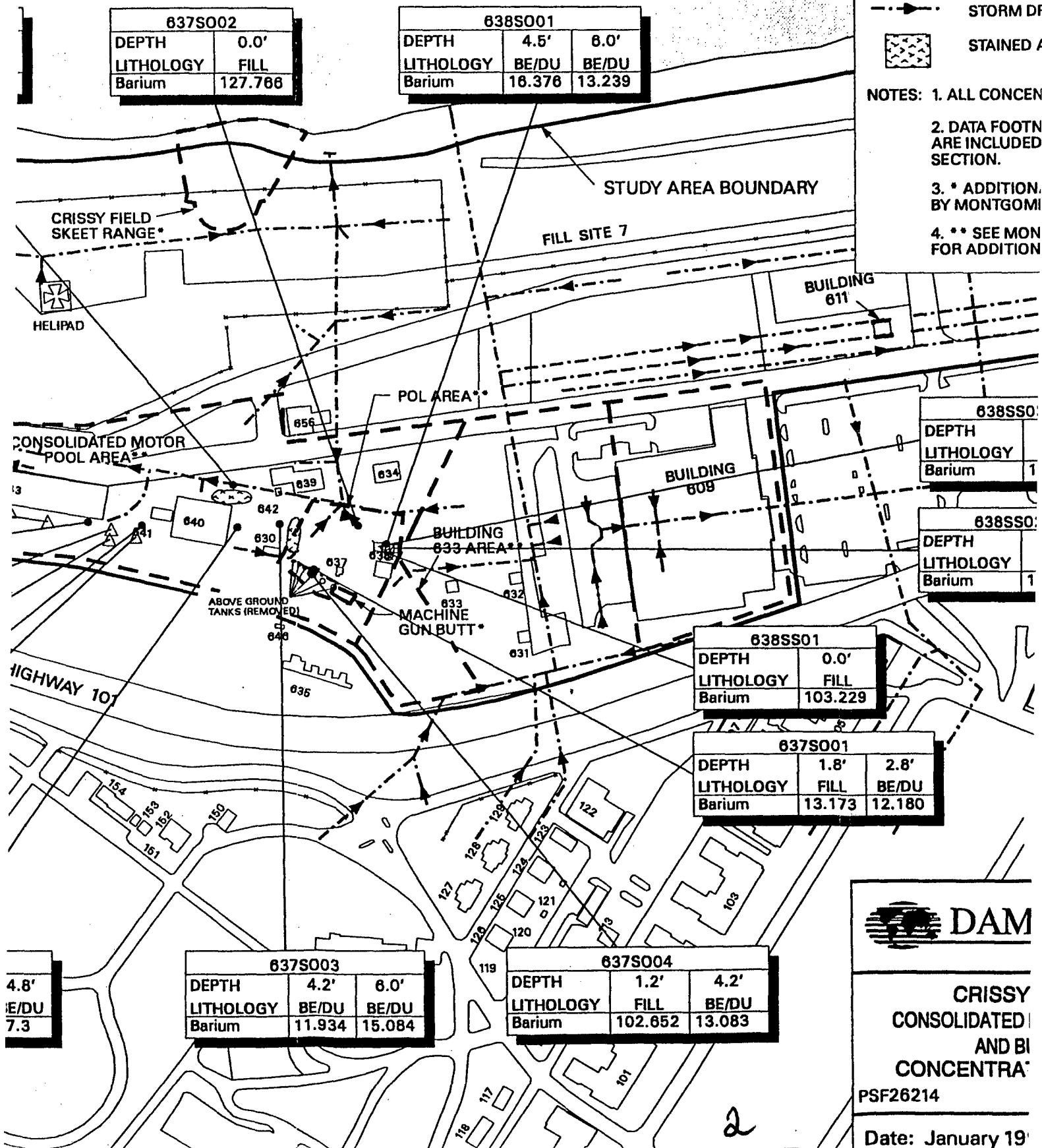
# SAN FRANCISCO BAY

637S002	
DEPTH	0.0'
LITHOLOGY	FILL
Barium	127.786

638S001		
DEPTH	4.5'	6.0'
LITHOLOGY	BE/DU	BE/DU
Barium	16.376	13.239

- ☒ SEDIMENT SURFACE
- △ SURFACE
- SOIL BORI
- STORM DF
- ▨ STAINED /

- NOTES: 1. ALL CONCEN
2. DATA FOOTN ARE INCLUDED SECTION.
3. \* ADDITION. BY MONTGOMI
4. \*\* SEE MON FOR ADDITION



4.8'
BE/DU
7.3

637S003		
DEPTH	4.2'	6.0'
LITHOLOGY	BE/DU	BE/DU
Barium	11.934	15.084

637S004		
DEPTH	1.2'	4.2'
LITHOLOGY	FILL	BE/DU
Barium	102.652	13.083

638SS01	
DEPTH	0.0'
LITHOLOGY	FILL
Barium	103.229

638SS01	
DEPTH	
LITHOLOGY	
Barium	1

638SS01	
DEPTH	
LITHOLOGY	
Barium	1



CRISSY  
CONSOLIDATED  
AND BI  
CONCENTRA

PSF26214

Date: January 19'



### EXPLANATION

- ☒ SEDIMENT SAMPLE FROM A PAVED SURFACE
- △ SURFACE SOIL SAMPLE
- SOIL BORING
- > STORM DRAIN WITH FLOW DIRECTION
- ▨ STAINED AREAS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.

4. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.

BOUNDARY

BUILDING 611

OLD MASON ST.

603

605

638SS03

DEPTH	0.0'
LITHOLOGY	FILL
Barium	131.172

638SS02

DEPTH	0.0'
LITHOLOGY	FILL
Barium	118.859

638SS01

DEPTH	0.0'
LITHOLOGY	FILL
Barium	103.229

637S001

DEPTH	1.8'	2.8'
LITHOLOGY	FILL	BE/DU
Barium	13.173	12.180

STATION 2

204

211

210

215

220

218

103



4.2'

BE/DU  
0.083



**DAMES & MOORE**

**CRISSY FIELD STUDY AREA  
CONSOLIDATED MOTOR POOL AREA, POL AREA,  
AND BUILDINGS 609 AND 633  
CONCENTRATIONS OF BARIUM IN SOIL**

PSF26214

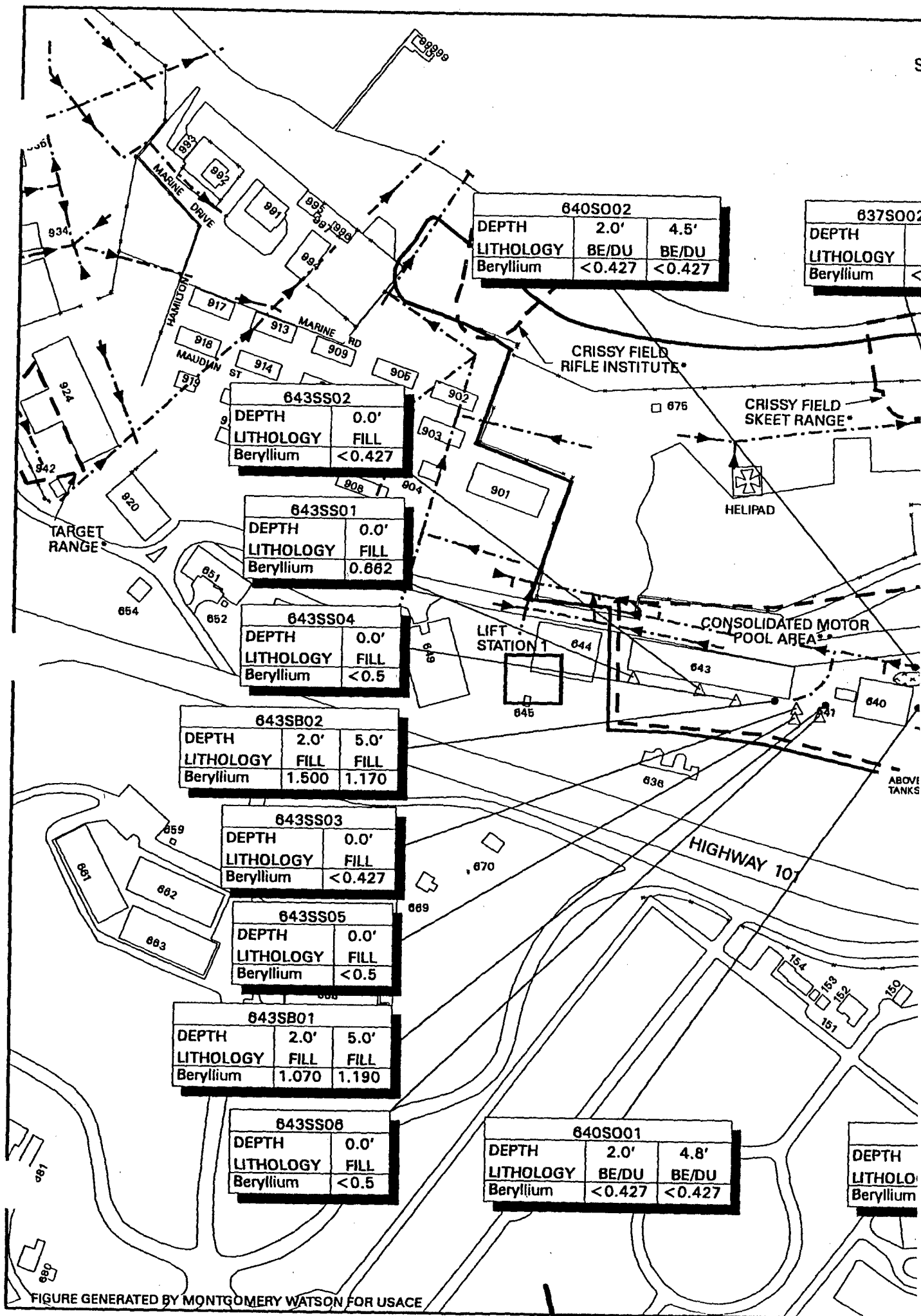
Date: January 1997

Figure 5.5-3

3



27 Dec 94 09:03:31 Friday, 17\_43.amt, profile base: CRISSEY1\_S-5.gra, P5F





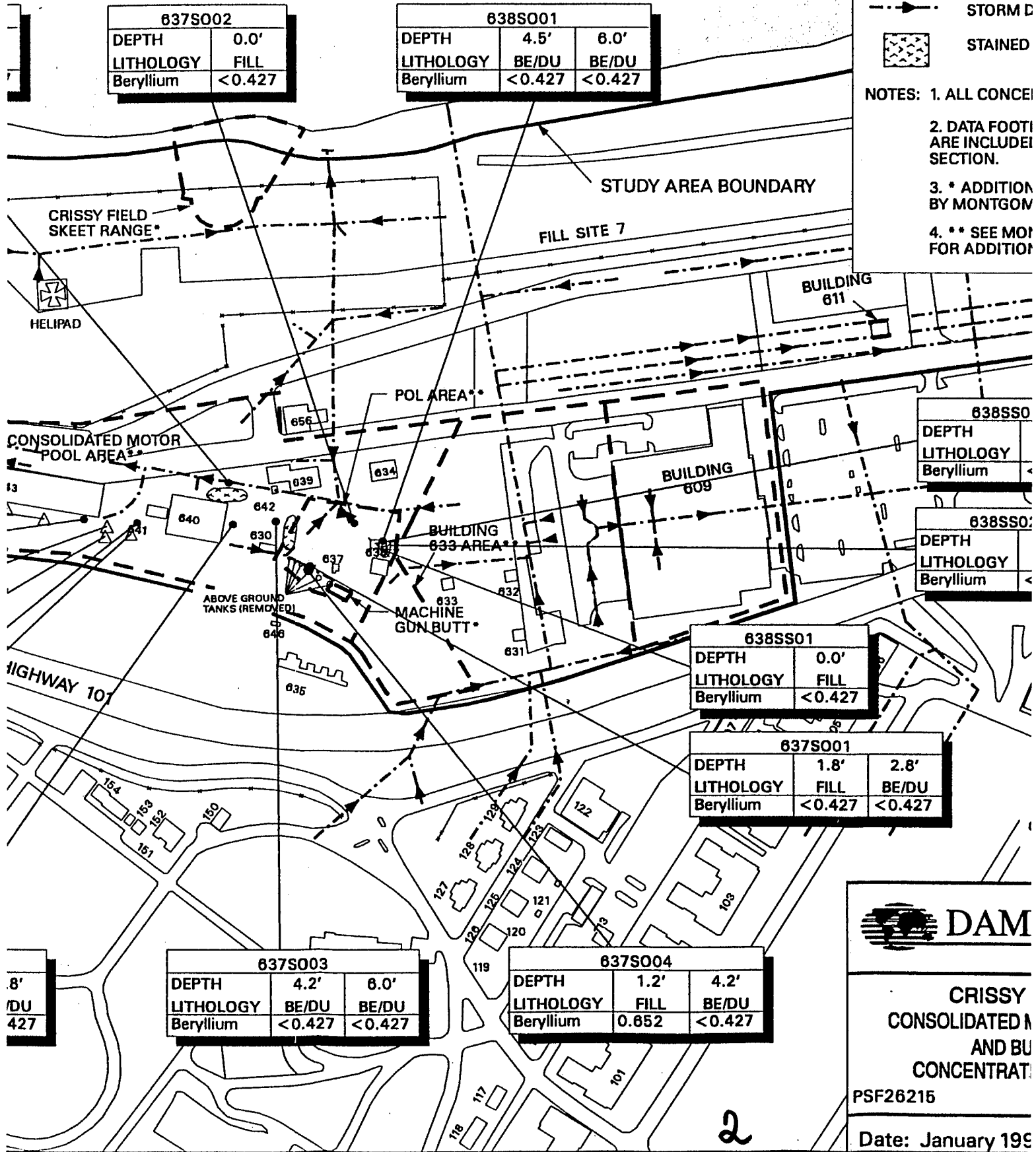
# SAN FRANCISCO BAY

637S002	
DEPTH	0.0'
LITHOLOGY	FILL
Beryllium	<0.427

638S001		
DEPTH	4.5'	6.0'
LITHOLOGY	BE/DU	BE/DU
Beryllium	<0.427	<0.427

- ⊠ SEDIMEN SURFACE
- △ SURFACE
- SOIL BOF
- > STORM D
- ▨ STAINED

- NOTES: 1. ALL CONCE  
2. DATA FOOTI  
ARE INCLUDEI  
SECTION.  
3. \* ADDITION  
BY MONTGOM  
4. \*\* SEE MOI  
FOR ADDITION



8'  
DU  
427

637S003		
DEPTH	4.2'	6.0'
LITHOLOGY	BE/DU	BE/DU
Beryllium	<0.427	<0.427

637S004		
DEPTH	1.2'	4.2'
LITHOLOGY	FILL	BE/DU
Beryllium	0.652	<0.427

638SS01	
DEPTH	0.0'
LITHOLOGY	FILL
Beryllium	<0.427

637S001		
DEPTH	1.8'	2.8'
LITHOLOGY	FILL	BE/DU
Beryllium	<0.427	<0.427

638SS0	
DEPTH	
LITHOLOGY	
Beryllium	

638SS0:	
DEPTH	
LITHOLOGY	
Beryllium	



CRISSY  
CONSOLIDATED M  
AND BU  
CONCENTRAT  
PSF26215  
Date: January 199



### EXPLANATION

- ☒ SEDIMENT SAMPLE FROM A PAVED SURFACE
- △ SURFACE SOIL SAMPLE
- SOIL BORING
- > STORM DRAIN WITH FLOW DIRECTION
- ▨ STAINED AREAS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.

4. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.

BOUNDARY

BUILDING 611

OLD MASON ST.

603

638SS03	
DEPTH	0.0'
LITHOLOGY	FILL
Beryllium	<0.427

605

638SS02	
DEPTH	0.0'
LITHOLOGY	FILL
Beryllium	<0.427

STATION 2

204

YOUNG

638SS01

DEPTH	0.0'
LITHOLOGY	FILL
Beryllium	<0.427

637S001

DEPTH	1.8'	2.8'
LITHOLOGY	FILL	BE/DU
Beryllium	<0.427	<0.427

211

210

215

220

218



**DAMES & MOORE**

CRISSY FIELD STUDY AREA  
CONSOLIDATED MOTOR POOL AREA, POL AREA,  
AND BUILDINGS 609 AND 633  
CONCENTRATIONS OF BERYLLIUM IN SOIL

PSF26215

Date: January 1997

Figure 5.5-4

3







# SAN FRANCISCO BAY

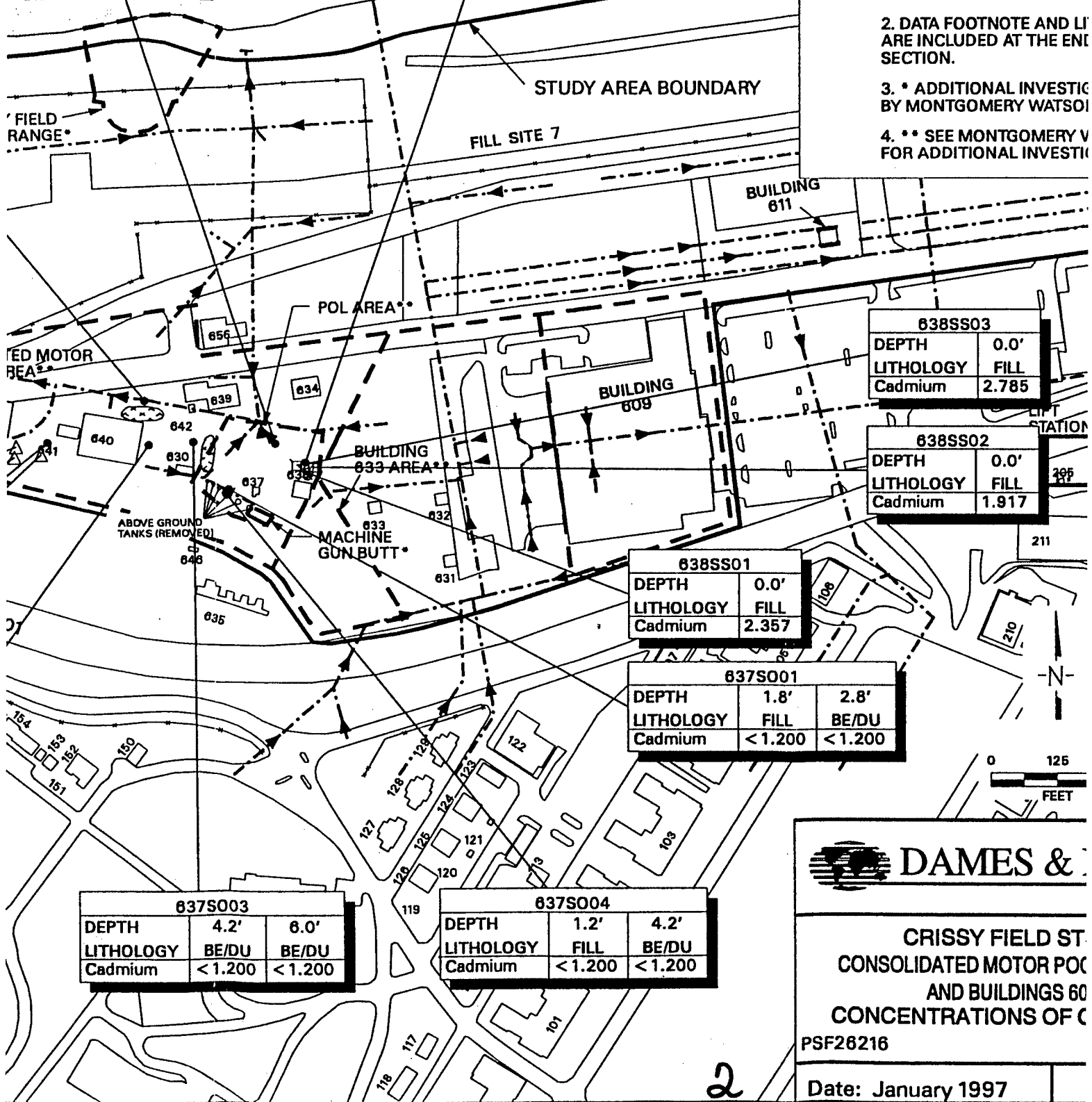
## EXPLANATION

- SEDIMENT SAMPLE FROM SURFACE
- △ SURFACE SOIL SAMPLE
- SOIL BORING
- > STORM DRAIN WITH FLOW
- ▨ STAINED AREAS

NOTES: 1. ALL CONCENTRATIONS IN mg/kg  
 2. DATA FOOTNOTE AND LOCATION ARE INCLUDED AT THE END OF SECTION.  
 3. \* ADDITIONAL INVESTIGATION BY MONTGOMERY WATSON  
 4. \*\* SEE MONTGOMERY WATSON FOR ADDITIONAL INVESTIGATION

637S002	
DEPTH	0.0'
LITHOLOGY	FILL
Cadmium	<1.200

638S001		
DEPTH	4.5'	6.0'
LITHOLOGY	BE/DU	BE/DU
Cadmium	<1.200	<1.200



638SS03	
DEPTH	0.0'
LITHOLOGY	FILL
Cadmium	2.785

638SS02	
DEPTH	0.0'
LITHOLOGY	FILL
Cadmium	1.917

638SS01	
DEPTH	0.0'
LITHOLOGY	FILL
Cadmium	2.357

637S001		
DEPTH	1.8'	2.8'
LITHOLOGY	FILL	BE/DU
Cadmium	<1.200	<1.200

637S003		
DEPTH	4.2'	6.0'
LITHOLOGY	BE/DU	BE/DU
Cadmium	<1.200	<1.200

637S004		
DEPTH	1.2'	4.2'
LITHOLOGY	FILL	BE/DU
Cadmium	<1.200	<1.200



CRISSY FIELD ST.  
 CONSOLIDATED MOTOR POOL  
 AND BUILDINGS 60  
 CONCENTRATIONS OF C  
 PSF26216

Date: January 1997



# EXPLANATION

- ⊠ SEDIMENT SAMPLE FROM A PAVED SURFACE
- △ SURFACE SOIL SAMPLE
- SOIL BORING
- > STORM DRAIN WITH FLOW DIRECTION
- ▨ STAINED AREAS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.

4. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.

A BOUNDARY

BUILDING 611

OLD MASON ST.

603

605

638SS03

DEPTH	0.0'
LITHOLOGY	FILL
Cadmium	2.785

LIFT STATION 2

638SS02

DEPTH	0.0'
LITHOLOGY	FILL
Cadmium	1.917

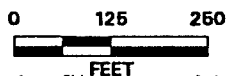
204

638SS01

DEPTH	0.0'
LITHOLOGY	FILL
Cadmium	2.357

637S001

DEPTH	1.8'	2.8'
LITHOLOGY	FILL	BE/DU
Cadmium	<1.200	<1.200



**DAMES & MOORE**

CRISSY FIELD STUDY AREA  
CONSOLIDATED MOTOR POOL AREA, POL AREA,  
AND BUILDINGS 609 AND 633  
CONCENTRATIONS OF CADMIUM IN SOIL

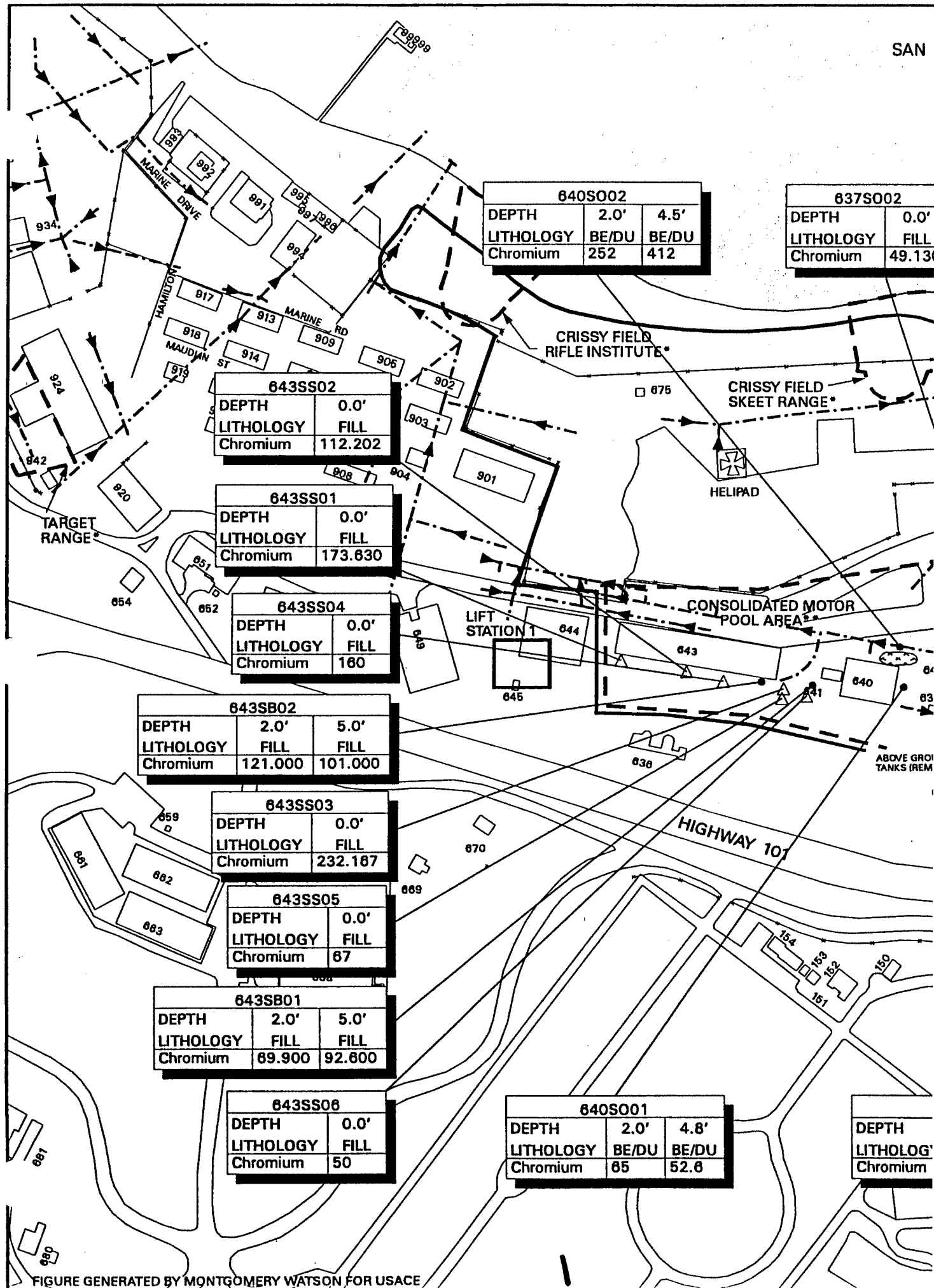
PSF26216

Date: January 1997

Figure 5.5-5

3







# SAN FRANCISCO BAY

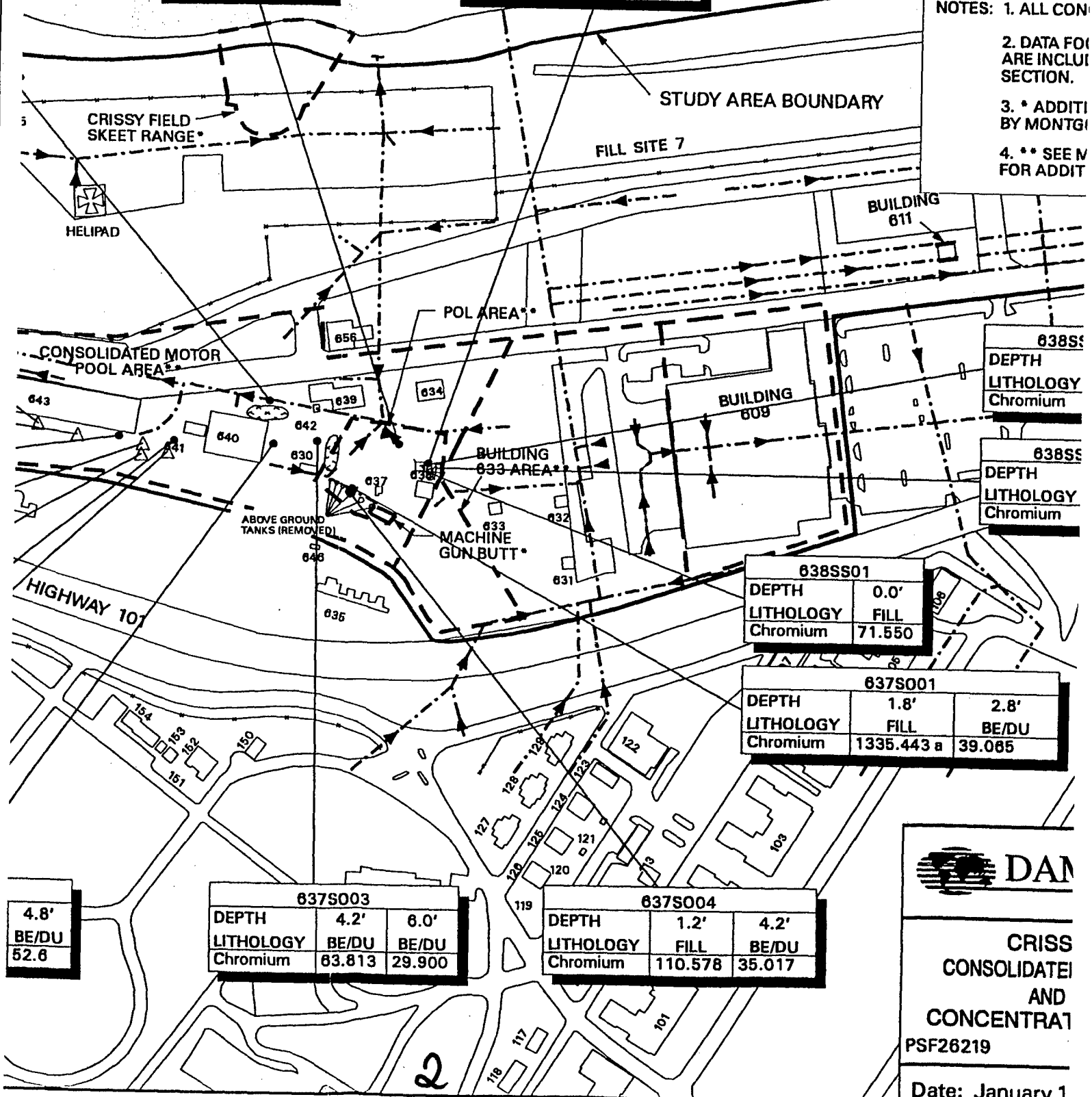
0.5'
BE/DU
2

637S002			
DEPTH	0.0'		
LITHOLOGY	FILL		
Chromium	49.130		

638S001			
DEPTH	4.5'	6.0'	
LITHOLOGY	BE/DU	BE/DU	
Chromium	62.561	36.855	

- SEDIM SURFA
- △ SURFA
- SOIL B
- > STORM
- STAINI

- NOTES: 1. ALL CON  
2. DATA FOR  
ARE INCLUI  
SECTION.  
3. \* ADDITI  
BY MONTGI  
4. \*\* SEE N  
FOR ADDIT



4.8'
BE/DU
52.6

637S003			
DEPTH	4.2'	6.0'	
LITHOLOGY	BE/DU	BE/DU	
Chromium	63.813	29.900	

637S004			
DEPTH	1.2'	4.2'	
LITHOLOGY	FILL	BE/DU	
Chromium	110.578	35.017	

638SS01			
DEPTH	0.0'		
LITHOLOGY	FILL		
Chromium	71.550		






637S001			
DEPTH	1.8'	2.8'	
LITHOLOGY	FILL	BE/DU	
Chromium	1335.443	39.065	



CRISS  
CONSOLIDATE  
AND  
CONCENTRA  
PSF26219  
Date: January 1



# EXPLANATION

-  SEDIMENT SAMPLE FROM A PAVED SURFACE
-  SURFACE SOIL SAMPLE
-  SOIL BORING
-  STORM DRAIN WITH FLOW DIRECTION
-  STAINED AREAS

- NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .
2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.
3. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.
4. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.

AREA BOUNDARY

BUILDING 611

OLD MASON ST.

603

605

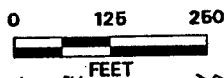
BUILDING 609

638SS03	
DEPTH	0.0'
LITHOLOGY	FILL
Chromium	70.078

638SS02	
DEPTH	0.0'
LITHOLOGY	FILL
Chromium	84.293

638SS01	
DEPTH	0.0'
LITHOLOGY	FILL
Chromium	71.550

637S001		
DEPTH	1.8'	2.8'
LITHOLOGY	FILL	BE/DU
Chromium	1335.443 a	39.065



**DAMES & MOORE**

CRISSY FIELD STUDY AREA  
CONSOLIDATED MOTOR POOL AREA, POL AREA,  
AND BUILDINGS 609 AND 633  
CONCENTRATIONS OF CHROMIUM IN SOIL

PSF26219

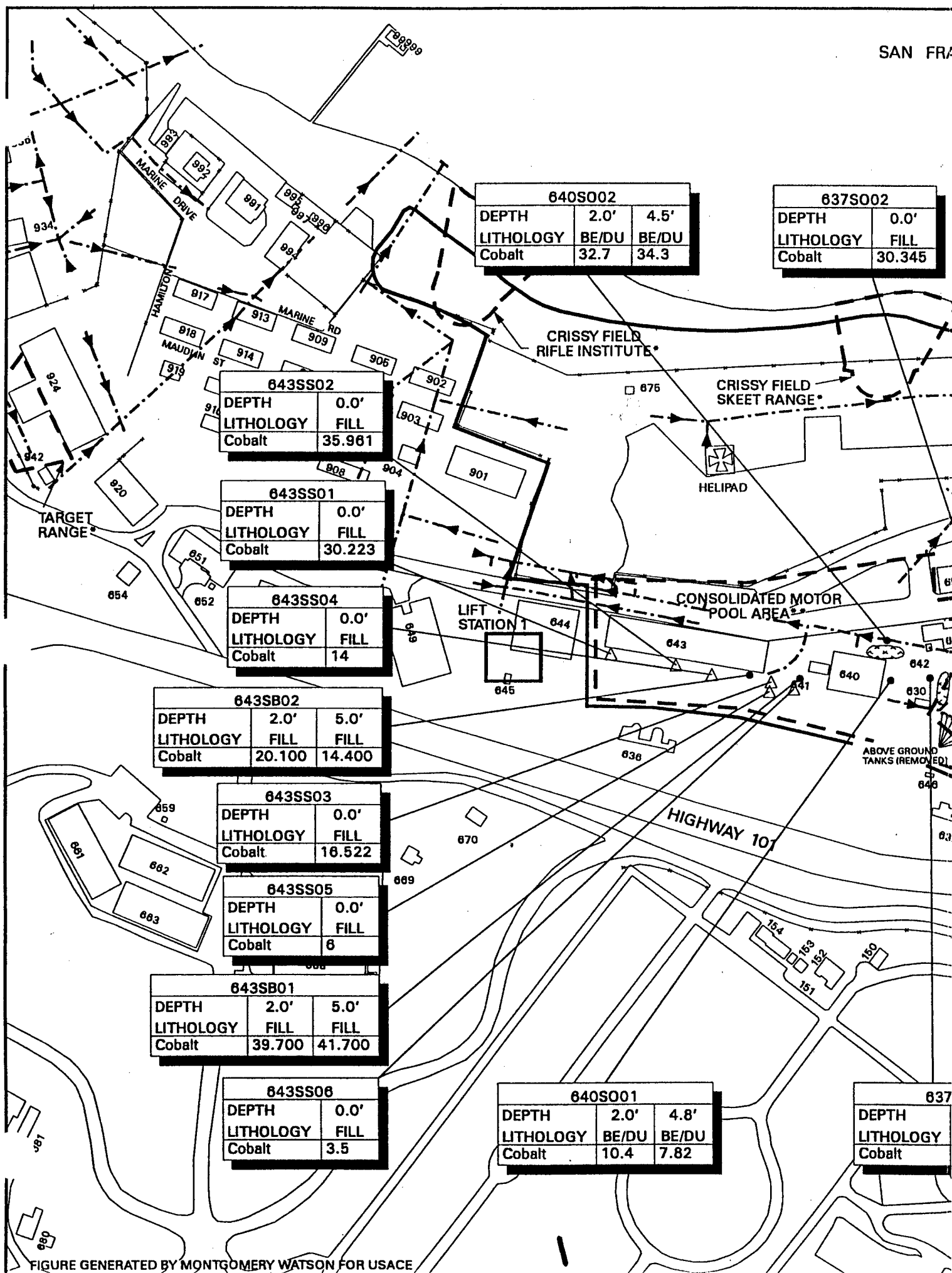
3

Date: January 1997

Figure 5.5-6

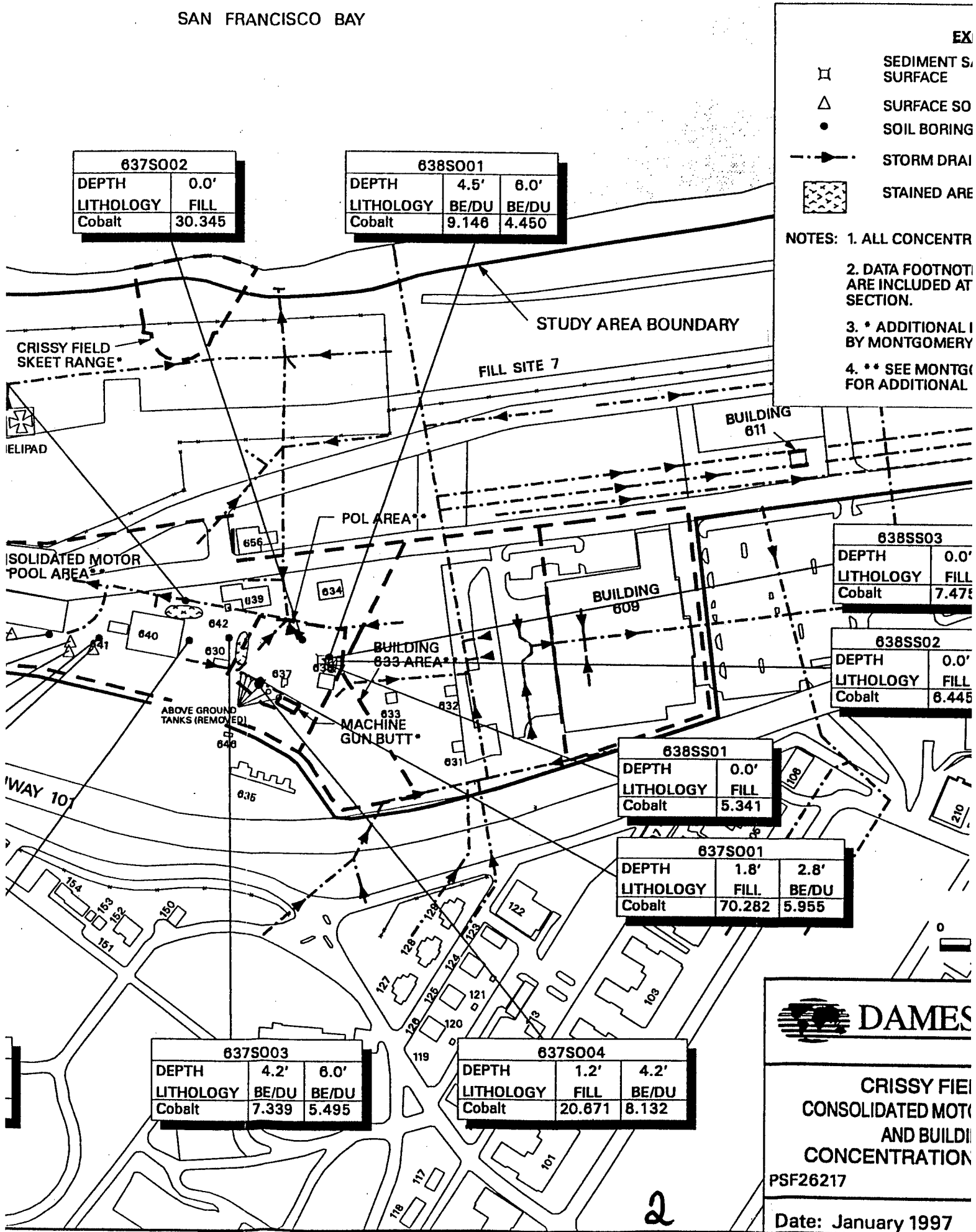
D4	
2'	4.2'
L	BE/DU
578	35.017







# SAN FRANCISCO BAY



637S002	
DEPTH	0.0'
LITHOLOGY	FILL
Cobalt	30.345

638S001		
DEPTH	4.5'	6.0'
LITHOLOGY	BE/DU	BE/DU
Cobalt	9.146	4.450

638SS03	
DEPTH	0.0'
LITHOLOGY	FILL
Cobalt	7.478

638SS02	
DEPTH	0.0'
LITHOLOGY	FILL
Cobalt	6.445

638SS01	
DEPTH	0.0'
LITHOLOGY	FILL
Cobalt	5.341

637S001		
DEPTH	1.8'	2.8'
LITHOLOGY	FILL	BE/DU
Cobalt	70.282	5.955

637S003		
DEPTH	4.2'	6.0'
LITHOLOGY	BE/DU	BE/DU
Cobalt	7.339	5.495

637S004		
DEPTH	1.2'	4.2'
LITHOLOGY	FILL	BE/DU
Cobalt	20.671	8.132



**CRISSY FIELD  
CONSOLIDATED MOTOR  
AND BUILDING  
CONCENTRATION**

PSF26217

Date: January 1997

2



### EXPLANATION

- ☐ SEDIMENT SAMPLE FROM A PAVED SURFACE
- △ SURFACE SOIL SAMPLE
- SOIL BORING
- > STORM DRAIN WITH FLOW DIRECTION
- ▨ STAINED AREAS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.

4. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.

A BOUNDARY

BUILDING 611

OLD MASON ST.

603

605

638SS03

DEPTH	0.0'
LITHOLOGY	FILL
Cobalt	7.475

LIFT STATION 2

638SS02

DEPTH	0.0'
LITHOLOGY	FILL
Cobalt	6.445

638SS01

DEPTH	0.0'
LITHOLOGY	FILL
Cobalt	5.341

637S001

DEPTH	1.8'	2.8'
LITHOLOGY	FILL	BE/DU
Cobalt	70.282	5.955

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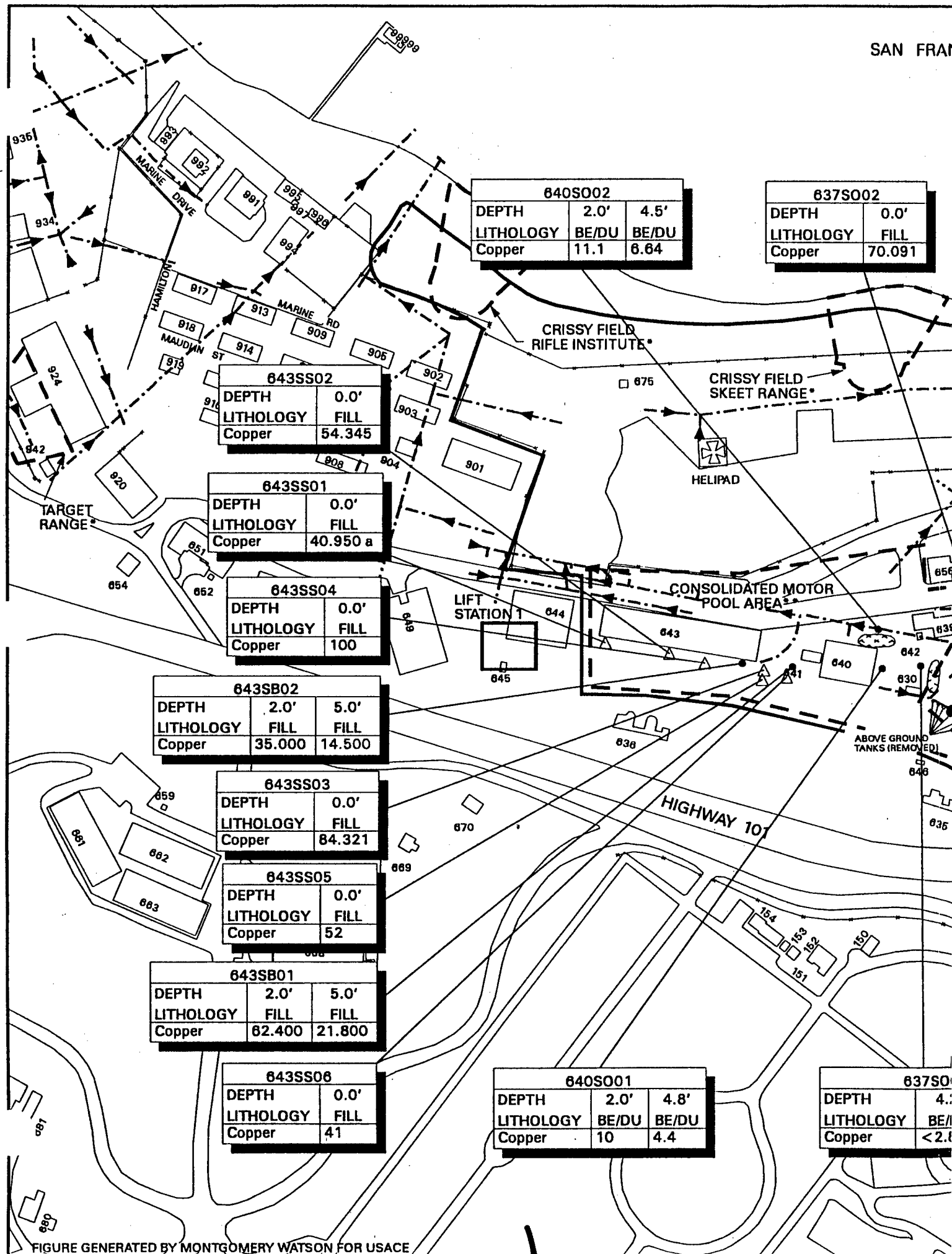
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1505

1510

1515







# SAN FRANCISCO BAY

640S002		
	2.0'	4.5'
Y	BE/DU	BE/DU
	11.1	6.64

637S002		
DEPTH	0.0'	
LITHOLOGY	FILL	
Copper	70.091	

638S001		
DEPTH	4.5'	6.0'
LITHOLOGY	BE/DU	BE/DU
Copper	<2.840	<2.840

CRISSY FIELD  
ELE INSTITUTE\*

CRISSY FIELD  
SKEET RANGE\*

HELIPAD

STUDY AREA BOUNDARY

FILL SITE 7

BUILDING  
611

CONSOLIDATED MOTOR  
POOL AREA\*

POL AREA\*

BUILDING  
609

BUILDING  
633 AREA\*

MACHINE  
GUN BUTT\*

ABOVE GROUND  
TANKS (REMOVED)

HIGHWAY 101

638SS01		
DEPTH	0.0'	
LITHOLOGY	FILL	
Copper	59.300	

637S001		
DEPTH	1.8'	2.
LITHOLOGY	FILL	BE
Copper	10.052	<2.

640S001		
	2.0'	4.8'
LOGY	BE/DU	BE/DU
	10	4.4

637S003		
DEPTH	4.2'	6.0'
LITHOLOGY	BE/DU	BE/DU
Copper	<2.840	<2.840

637S004		
DEPTH	1.2'	4.2'
LITHOLOGY	FILL	BE/DU
Copper	16.064	<2.840

NOTE

PSF26  
Date



# EXPLANATION



SEDIMENT SAMPLE FROM A PAVED SURFACE



SURFACE SOIL SAMPLE



SOIL BORING



STORM DRAIN WITH FLOW DIRECTION



STAINED AREAS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.

4. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.

Y AREA BOUNDARY

BUILDING 611

OLD MASON ST.

603

605

BUILDING 609

638SS03

DEPTH	0.0'
LITHOLOGY	FILL
Copper	77.630

638SS02

DEPTH	0.0'
LITHOLOGY	FILL
Copper	94.433

638SS01

DEPTH	0.0'
LITHOLOGY	FILL
Copper	59.300

637S001

DEPTH	1.8'	2.8'
LITHOLOGY	FILL	BE/DU
Copper	10.052	<2.840

STATION 2

211

210

215

204

YOUNG

220

218



DAMES & MOORE

CRISSY FIELD STUDY AREA  
CONSOLIDATED MOTOR POOL AREA, POL AREA,  
AND BUILDINGS 609 AND 633  
CONCENTRATIONS OF COPPER IN SOIL

PSF26220

3

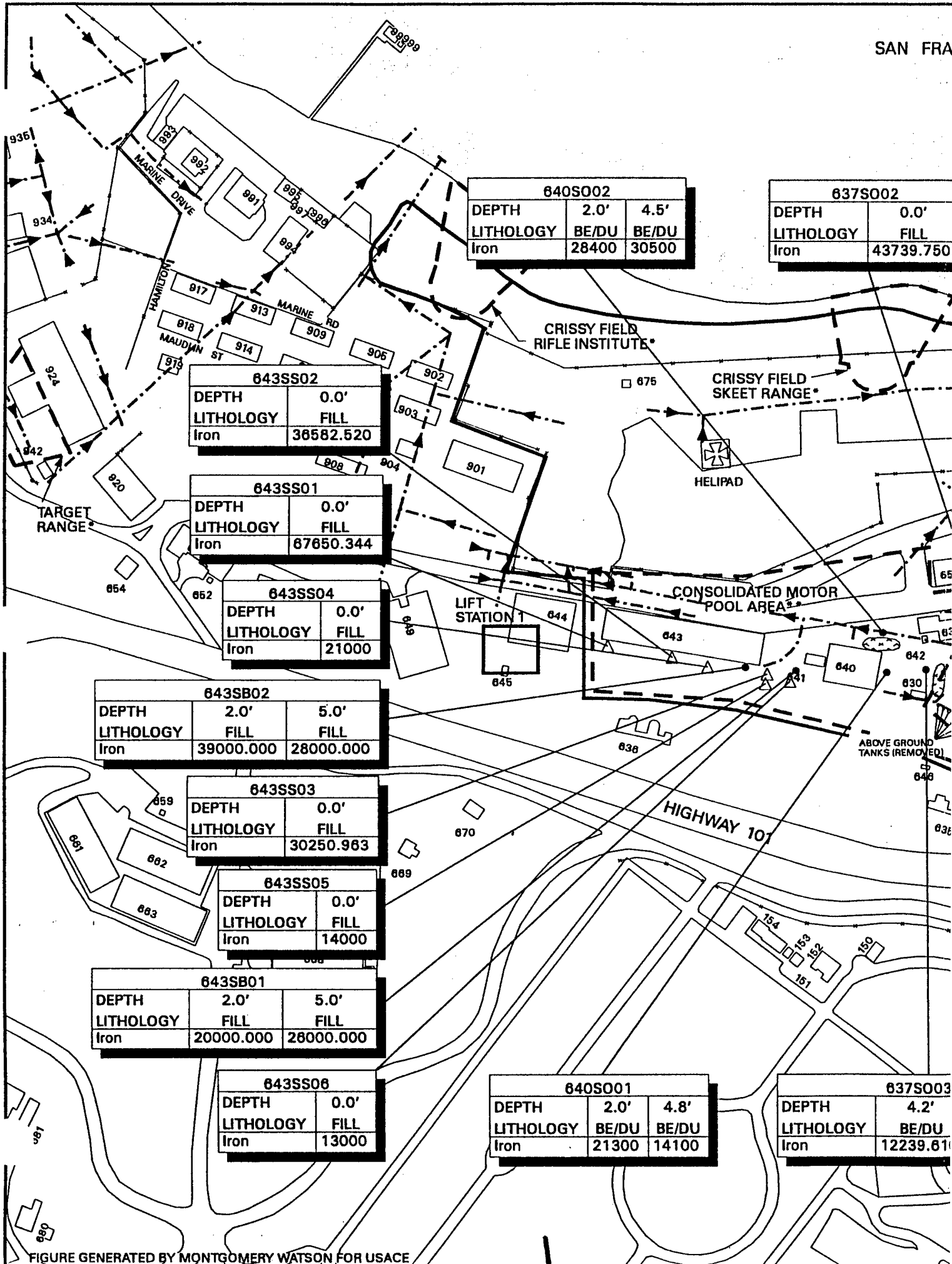
Date: January 1997

Figure 5.5-8

5004

1.2'	4.2'
FILL	BE/DU
3.064	<2.840












## SAN FRANCISCO BAY

## EXPLANA

-  SEDIMENT SAMPLE SURFACE
-  SURFACE SOIL SAMPLE
-  SOIL BORING
-  STORM DRAIN WITHIN 100 FEET
-  STAINED AREAS

**NOTES: 1. ALL CONCENTRATION**

**2. DATA FOOTNOTE AND**

**ARE INCLUDED AT THE E**

**SECTION.**

**3. \* ADDITIONAL INVES**

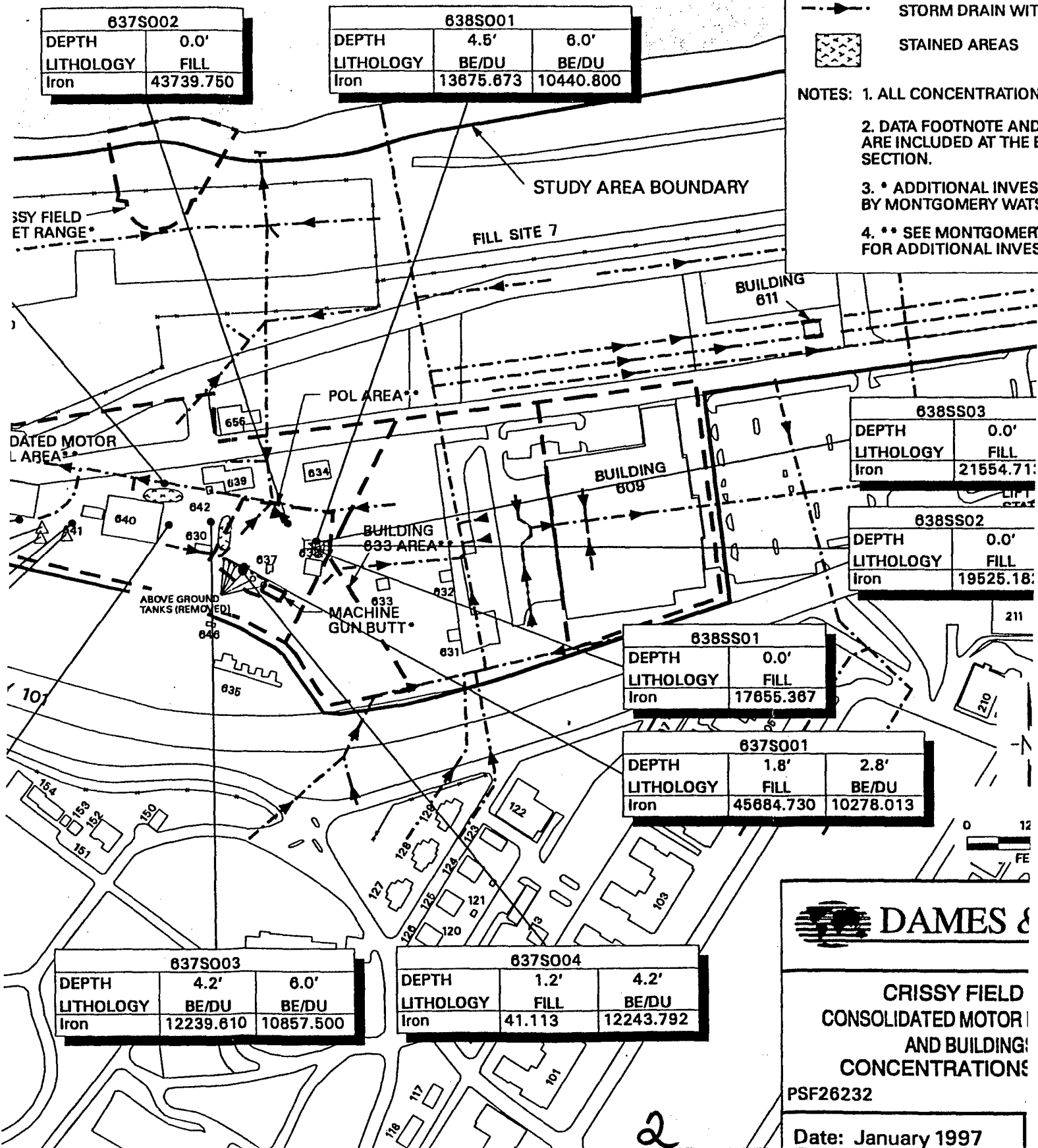
**BY MONTGOMERY WAT**

**4. \*\* SEE MONTGOMER**

**FOR ADDITIONAL INVES**

637S002	
DEPTH	0.0'
LITHOLOGY	FILL
Iron	43739.750

638S001		
DEPTH	4.5'	6.0'
LITHOLOGY	BE/DU	BE/DU
Iron	13675.673	10440.800


**DAMES &**

**CRISSY FIELD  
CONSOLIDATED MOTOR  
AND BUILDING  
CONCENTRATIONS**

PSF26232

**Date: January 1997**



### EXPLANATION

- ⌘ SEDIMENT SAMPLE FROM A PAVED SURFACE
- △ SURFACE SOIL SAMPLE
- SOIL BORING
- > STORM DRAIN WITH FLOW DIRECTION
- ▨ STAINED AREAS

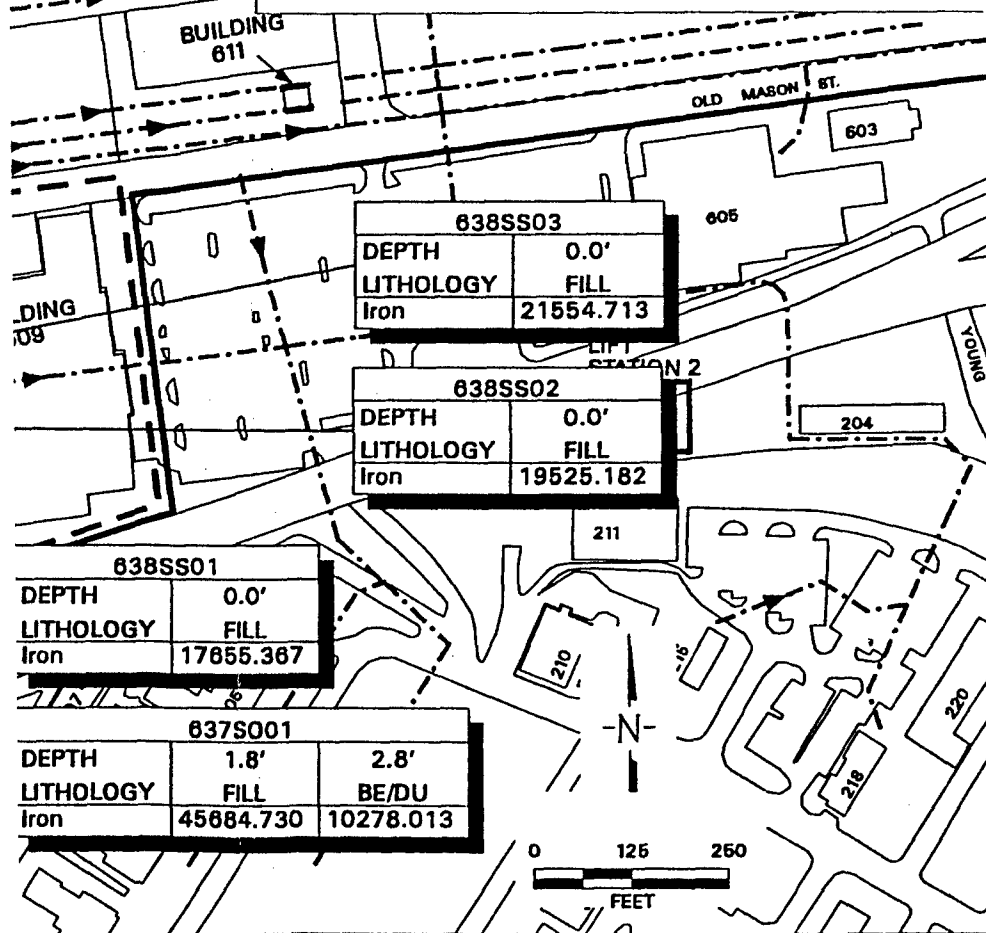
NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.

4. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.

EA BOUNDARY



**DAMES & MOORE**

CRISSY FIELD STUDY AREA  
CONSOLIDATED MOTOR POOL AREA, POL AREA,  
AND BUILDINGS 609 AND 633  
CONCENTRATIONS OF IRON IN SOIL

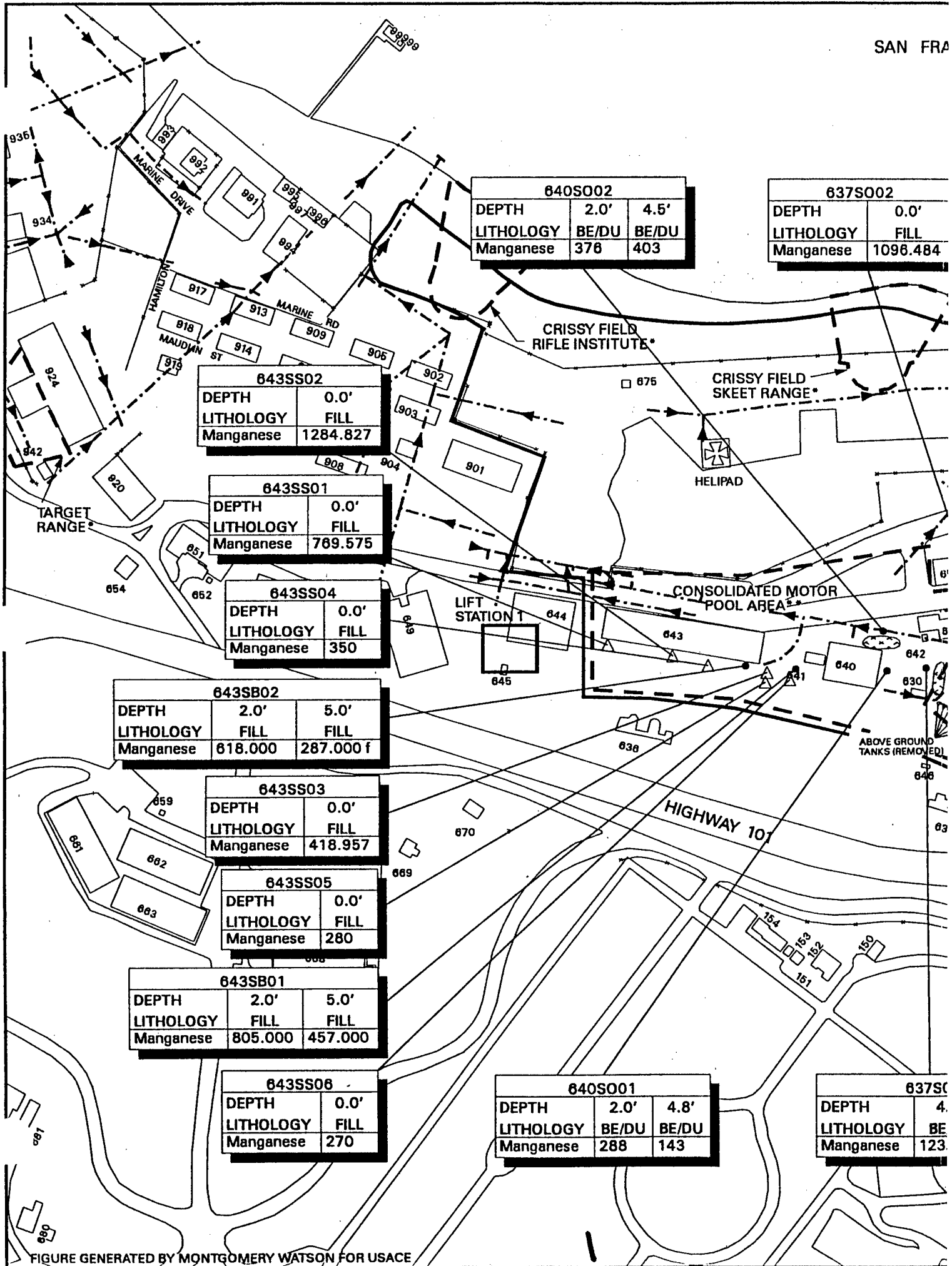
PSF26232

3

Date: January 1997

Figure 5.5-9





640S002		
DEPTH	2.0'	4.5'
LITHOLOGY	BE/DU	BE/DU
Manganese	376	403

637S002	
DEPTH	0.0'
LITHOLOGY	FILL
Manganese	1096.484

643SS02	
DEPTH	0.0'
LITHOLOGY	FILL
Manganese	1284.827

643SS01	
DEPTH	0.0'
LITHOLOGY	FILL
Manganese	769.575

643SS04	
DEPTH	0.0'
LITHOLOGY	FILL
Manganese	350

643SB02		
DEPTH	2.0'	5.0'
LITHOLOGY	FILL	FILL
Manganese	618.000	287.000 f

643SS03	
DEPTH	0.0'
LITHOLOGY	FILL
Manganese	418.957

643SS05	
DEPTH	0.0'
LITHOLOGY	FILL
Manganese	280

643SB01		
DEPTH	2.0'	5.0'
LITHOLOGY	FILL	FILL
Manganese	805.000	457.000

643SS06	
DEPTH	0.0'
LITHOLOGY	FILL
Manganese	270

640S001		
DEPTH	2.0'	4.8'
LITHOLOGY	BE/DU	BE/DU
Manganese	288	143

637S001	
DEPTH	4.0'
LITHOLOGY	BE
Manganese	123

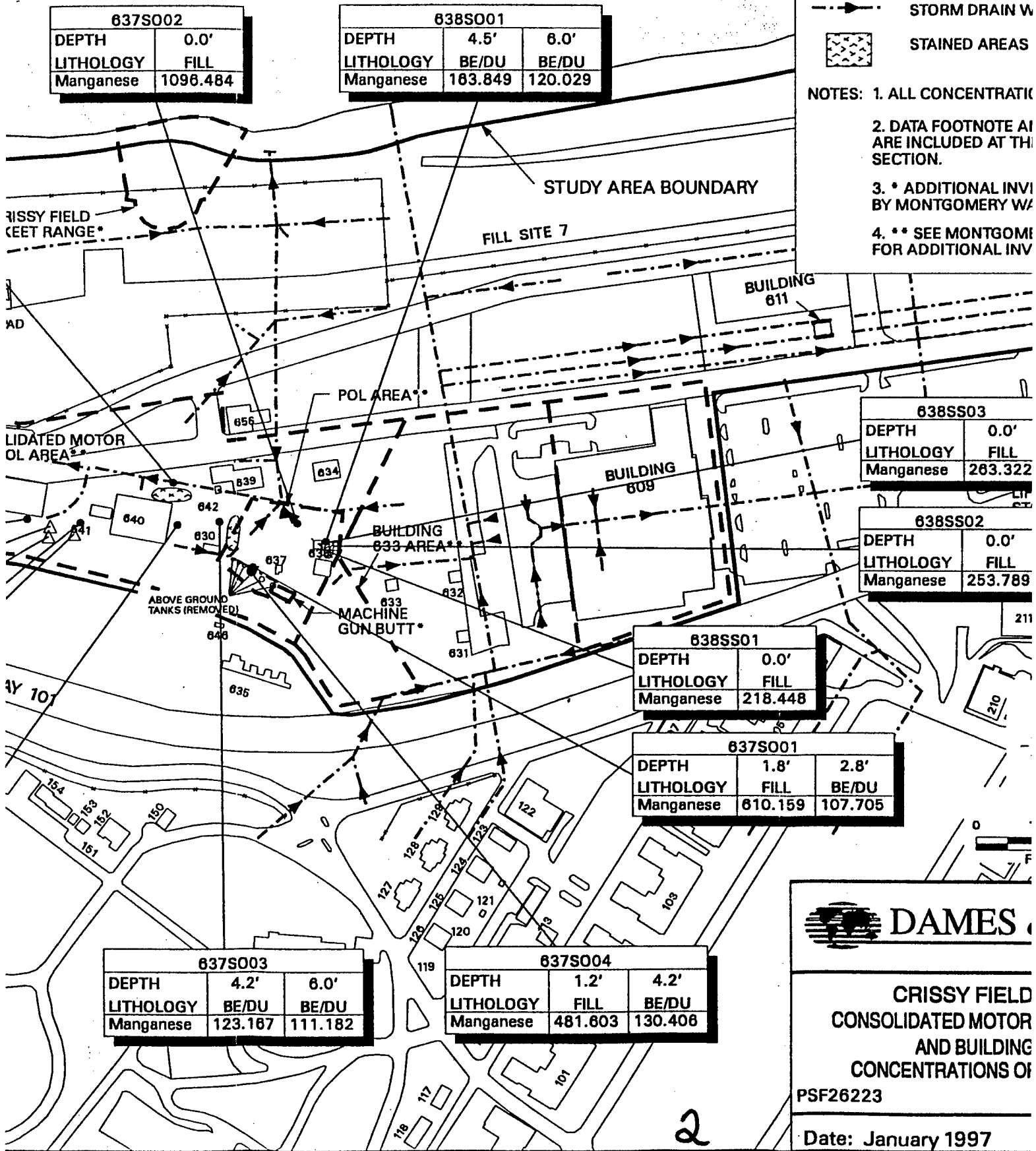


# SAN FRANCISCO BAY

## EXPLA

- ⊠ SEDIMENT SAMPLING SURFACE
- △ SURFACE SOIL SAMPLE
- SOIL BORING
- > STORM DRAIN WAY
- ▨ STAINED AREAS

- NOTES: 1. ALL CONCENTRATIONS ARE IN PPM  
 2. DATA FOOTNOTE A1 ARE INCLUDED AT THE END OF THIS SECTION.  
 3. \* ADDITIONAL INVESTIGATION BY MONTGOMERY WATKINS  
 4. \*\* SEE MONTGOMERY WATKINS FOR ADDITIONAL INVESTIGATION



637S002	
DEPTH	0.0'
LITHOLOGY	FILL
Manganese	1096.484

638S001		
DEPTH	4.5'	6.0'
LITHOLOGY	BE/DU	BE/DU
Manganese	183.849	120.029

638SS03	
DEPTH	0.0'
LITHOLOGY	FILL
Manganese	263.322

638SS02	
DEPTH	0.0'
LITHOLOGY	FILL
Manganese	253.789

638SS01	
DEPTH	0.0'
LITHOLOGY	FILL
Manganese	218.448

637S001		
DEPTH	1.8'	2.8'
LITHOLOGY	FILL	BE/DU
Manganese	610.159	107.705

637S003		
DEPTH	4.2'	6.0'
LITHOLOGY	BE/DU	BE/DU
Manganese	123.187	111.182

637S004		
DEPTH	1.2'	4.2'
LITHOLOGY	FILL	BE/DU
Manganese	481.603	130.406

**DAMES**

CRISSY FIELD  
 CONSOLIDATED MOTOR  
 AND BUILDING  
 CONCENTRATIONS OF  
 PSF26223

Date: January 1997



# EXPLANATION

- ⊠ SEDIMENT SAMPLE FROM A PAVED SURFACE
- △ SURFACE SOIL SAMPLE
- SOIL BORING
- > STORM DRAIN WITH FLOW DIRECTION
- ▨ STAINED AREAS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.

4. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.

A BOUNDARY

BUILDING 611

OLD MASON ST.

603

606

638SS03

DEPTH	0.0'
LITHOLOGY	FILL
Manganese	263.322

638SS02

DEPTH	0.0'
LITHOLOGY	FILL
Manganese	253.789

638SS01

DEPTH	0.0'
LITHOLOGY	FILL
Manganese	218.448

637S001

DEPTH	1.8'	2.8'
LITHOLOGY	FILL	BE/DU
Manganese	610.159	107.705

211

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0 125 250  
FEET



DAMES & MOORE

CRISSY FIELD STUDY AREA  
CONSOLIDATED MOTOR POOL AREA, POL AREA,  
AND BUILDINGS 609 AND 633  
CONCENTRATIONS OF MANGANESE IN SOIL

PSF26223

3

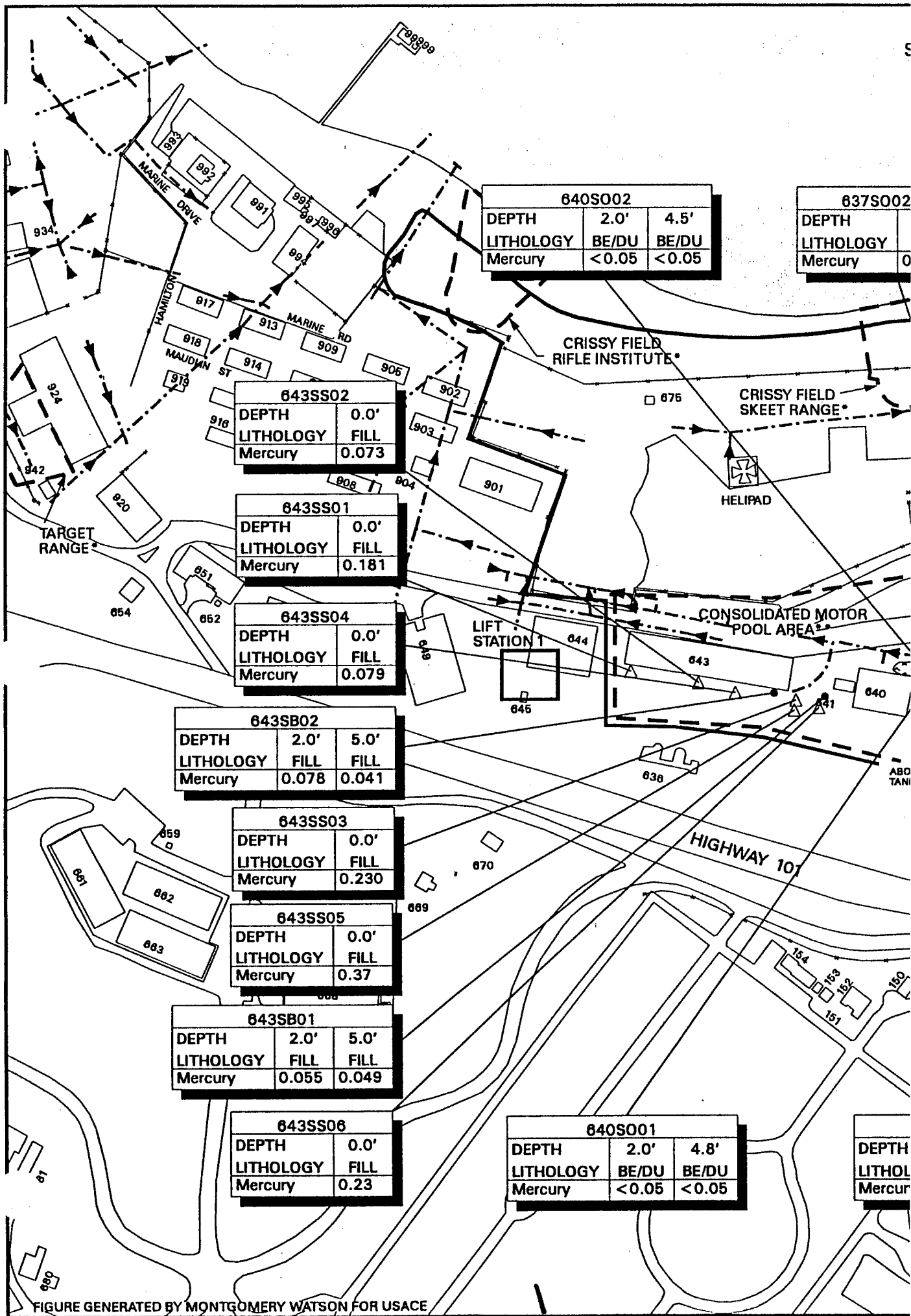
Date: January 1997

Figure 5.5-11

4.2'

BE/DU  
30.406







# SAN FRANCISCO BAY

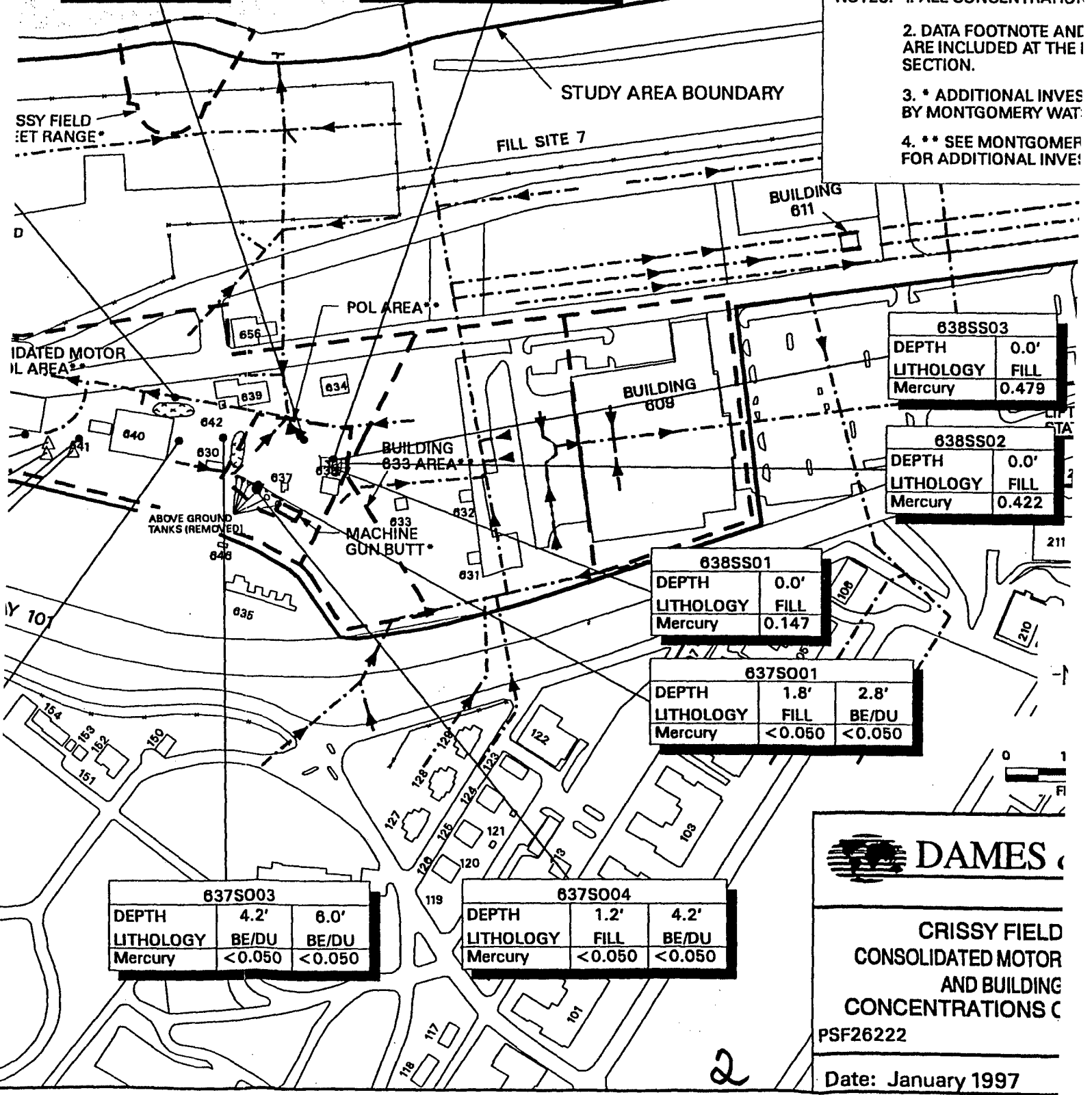
## EXPLANATION

- SEDIMENT SAMPLE SURFACE
- △ SURFACE SOIL SAMPLE
- SOIL BORING
- > STORM DRAIN WITH FLOW
- ▨ STAINED AREAS

- NOTES: 1. ALL CONCENTRATIONS ARE IN MICROGRAMS PER GRAM (PPM).
2. DATA FOOTNOTES AND ARE INCLUDED AT THE END OF EACH SECTION.
3. \* ADDITIONAL INVESTIGATION BY MONTGOMERY WATKINS.
4. \*\* SEE MONTGOMERY WATKINS FOR ADDITIONAL INVESTIGATION.

637S002	
DEPTH	0.0'
LITHOLOGY	FILL
Mercury	0.078

638S001		
DEPTH	4.5'	6.0'
LITHOLOGY	BE/DU	BE/DU
Mercury	<0.050	<0.050



638SS03	
DEPTH	0.0'
LITHOLOGY	FILL
Mercury	0.479

638SS02	
DEPTH	0.0'
LITHOLOGY	FILL
Mercury	0.422

638SS01	
DEPTH	0.0'
LITHOLOGY	FILL
Mercury	0.147

637S001		
DEPTH	1.8'	2.8'
LITHOLOGY	FILL	BE/DU
Mercury	<0.050	<0.050

637S003		
DEPTH	4.2'	6.0'
LITHOLOGY	BE/DU	BE/DU
Mercury	<0.050	<0.050

637S004		
DEPTH	1.2'	4.2'
LITHOLOGY	FILL	BE/DU
Mercury	<0.050	<0.050



CRISSY FIELD  
CONSOLIDATED MOTOR  
AND BUILDING  
CONCENTRATIONS C  
PSF26222

Date: January 1997



### EXPLANATION

- ☒ SEDIMENT SAMPLE FROM A PAVED SURFACE
- △ SURFACE SOIL SAMPLE
- SOIL BORING
- > STORM DRAIN WITH FLOW DIRECTION
- ▨ STAINED AREAS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.

4. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.

A BOUNDARY

BUILDING 611

OLD MASON ST.

603

605

638SS03

DEPTH	0.0'
LITHOLOGY	FILL
Mercury	0.479

LIFT STATION 2

638SS02

DEPTH	0.0'
LITHOLOGY	FILL
Mercury	0.422

205

204

638SS01

DEPTH	0.0'
LITHOLOGY	FILL
Mercury	0.147

637S001

DEPTH	1.8'	2.8'
LITHOLOGY	FILL	BE/DU
Mercury	<0.050	<0.050

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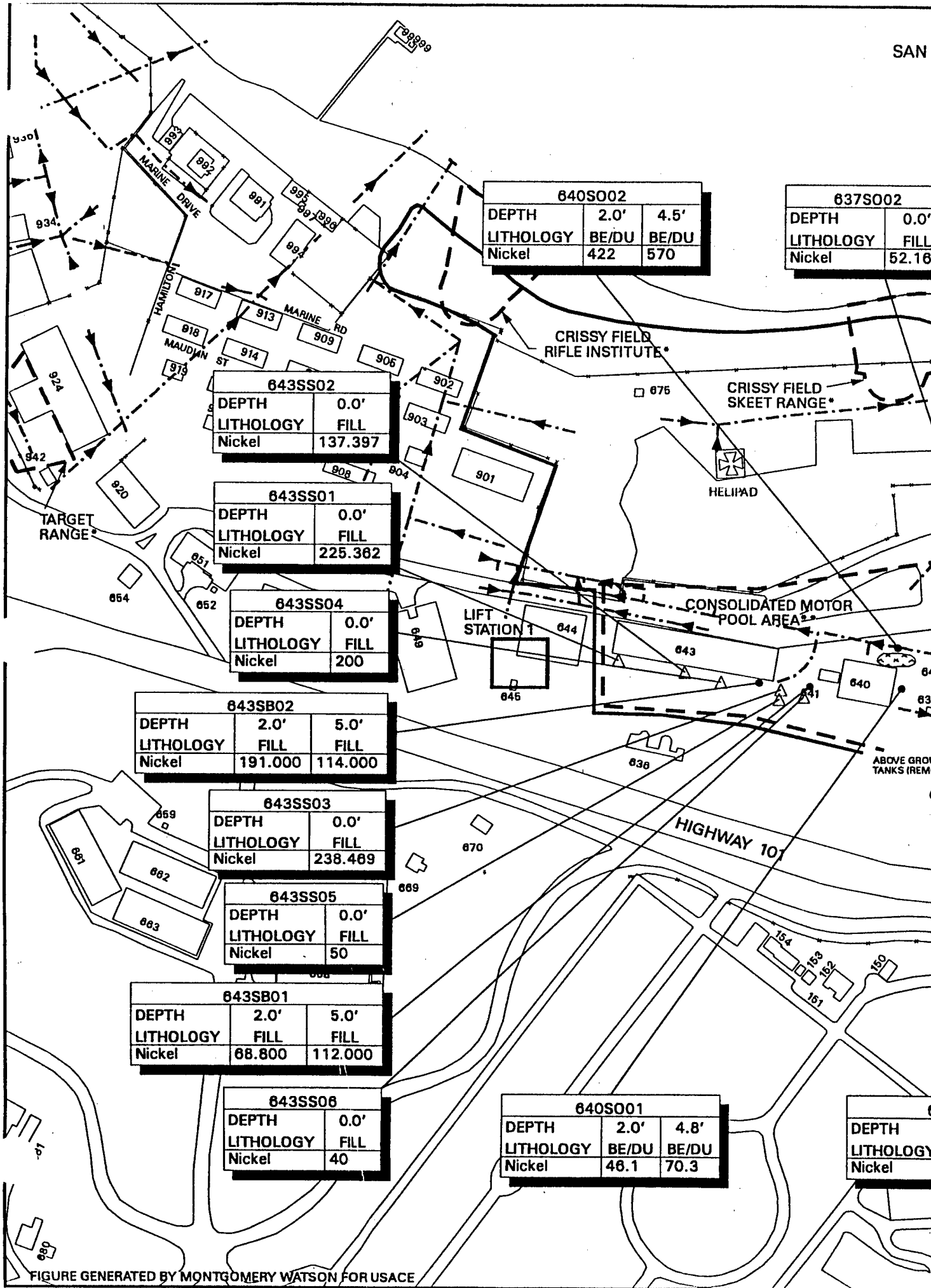
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# SAN FRANCISCO BAY

EXPL

-  SEDIMENT SURFACE
-  SURFACE SOIL
-  SOIL BORING
-  STORM DRAIN
-  STAINED AREA

- NOTES: 1. ALL CONCENTRATIONS  
2. DATA FOOTNOTES ARE INCLUDED AT THE END OF EACH SECTION.  
3. \* ADDITIONAL INFORMATION BY MONTGOMERY  
4. \*\* SEE MONTGOMERY FOR ADDITIONAL INFORMATION

637S002	
DEPTH	0.0'
LITHOLOGY	FILL
Nickel	52.187

638S001		
DEPTH	4.5'	6.0'
LITHOLOGY	BE/DU	BE/DU
Nickel	111.589	29.323

STUDY AREA BOUNDARY

FILL SITE 7

BUILDING 611

CRISSY FIELD SKEET RANGE\*

ELIPAD

SOLIDATED MOTOR POOL AREA\*

POL AREA\*\*

BUILDING 609

638SS03	
DEPTH	0.0'
LITHOLOGY	FILL
Nickel	47.27

638SS02	
DEPTH	0.0'
LITHOLOGY	FILL
Nickel	43.05

ABOVE GROUND TANKS (REMOVED)

MACHINE GUN BUTT\*

638SS01	
DEPTH	0.0'
LITHOLOGY	FILL
Nickel	33.508

637S001		
DEPTH	1.8'	2.8'
LITHOLOGY	FILL	BE/DU
Nickel	1394.042	48.508

637S003		
DEPTH	4.2'	6.0'
LITHOLOGY	BE/DU	BE/DU
Nickel	78.535	27.377

637S004		
DEPTH	1.2'	4.2'
LITHOLOGY	FILL	BE/DU
Nickel	66.685	71.379



CRISSY FIELD  
CONSOLIDATED MOTOR POOL  
AND BUILDING  
CONCENTRATION

PSF26224

Date: January 1997

2



### EXPLANATION



SEDIMENT SAMPLE FROM A PAVED SURFACE



SURFACE SOIL SAMPLE



SOIL BORING



STORM DRAIN WITH FLOW DIRECTION



STAINED AREAS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.

4. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.

A BOUNDARY

BUILDING 611

OLD MASON ST.

603

605

638SS03

DEPTH	0.0'
LITHOLOGY	FILL
Nickel	47.278

638SS02

DEPTH	0.0'
LITHOLOGY	FILL
Nickel	43.052

638SS01

DEPTH	0.0'
LITHOLOGY	FILL
Nickel	33.508

637S001

DEPTH	1.8'	2.8'
LITHOLOGY	FILL	BE/DU
Nickel	1394.042	48.508

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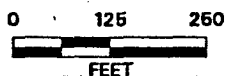
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DAMES & MOORE

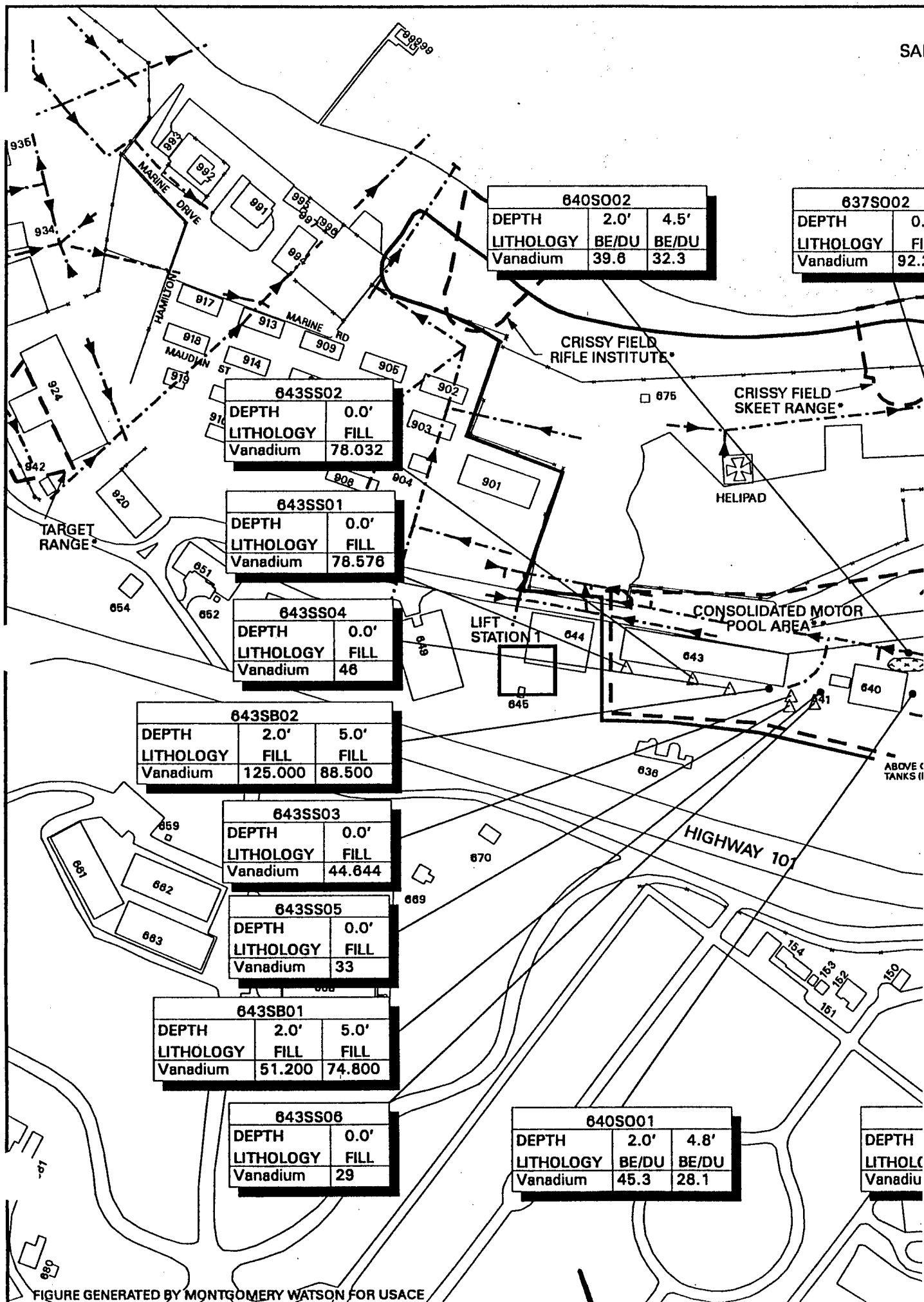
CRISSY FIELD STUDY AREA  
CONSOLIDATED MOTOR POOL AREA, POL AREA,  
AND BUILDINGS 609 AND 633  
CONCENTRATIONS OF NICKEL IN SOIL

PSF26224

Date: January 1997

Figure 5.5-13







# SAN FRANCISCO BAY

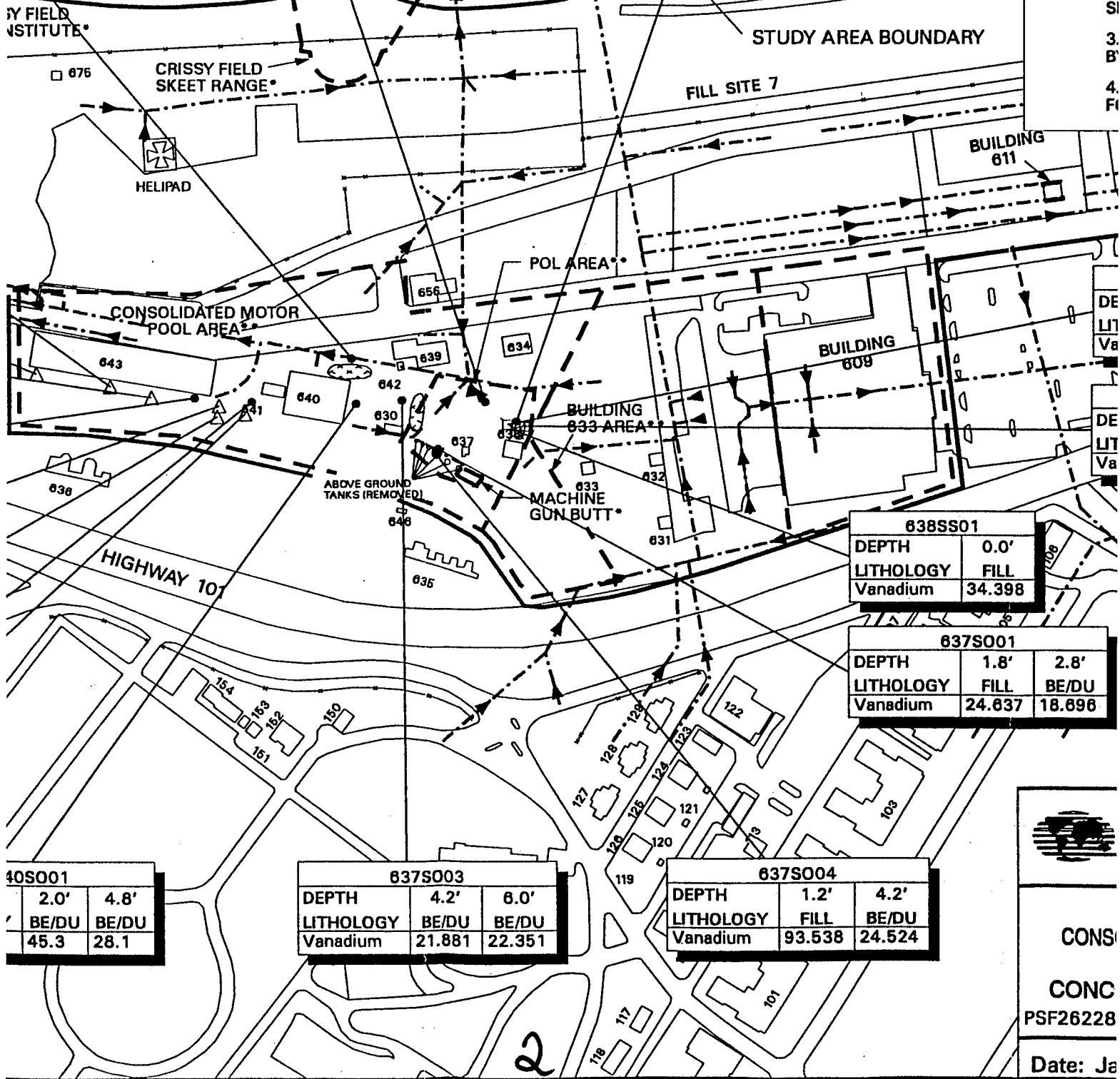
002	2.0'	4.5'
IE/DU	BE/DU	
9.6	32.3	

637S002	DEPTH	0.0'
LITHOLOGY	FILL	
Vanadium	92.261	

638S001	DEPTH	4.5'	6.0'
LITHOLOGY	BE/DU	BE/DU	
Vanadium	23.612	21.341	



NOTES: 1.  
2. A  
3. B  
4. F



40S001	2.0'	4.8'
BE/DU	BE/DU	
45.3	28.1	

637S003	DEPTH	4.2'	6.0'
LITHOLOGY	BE/DU	BE/DU	
Vanadium	21.881	22.351	

637S004	DEPTH	1.2'	4.2'
LITHOLOGY	FILL	BE/DU	
Vanadium	93.538	24.524	

638SS01	DEPTH	0.0'
LITHOLOGY	FILL	
Vanadium	34.398	

637S001	DEPTH	1.8'	2.8'
LITHOLOGY	FILL	BE/DU	
Vanadium	24.637	18.696	



CONS

CONC

PSF26228

Date: Ja



### EXPLANATION

- ⊠ SEDIMENT SAMPLE FROM A PAVED SURFACE
- △ SURFACE SOIL SAMPLE
- SOIL BORING
- > STORM DRAIN WITH FLOW DIRECTION
- ▨ STAINED AREAS

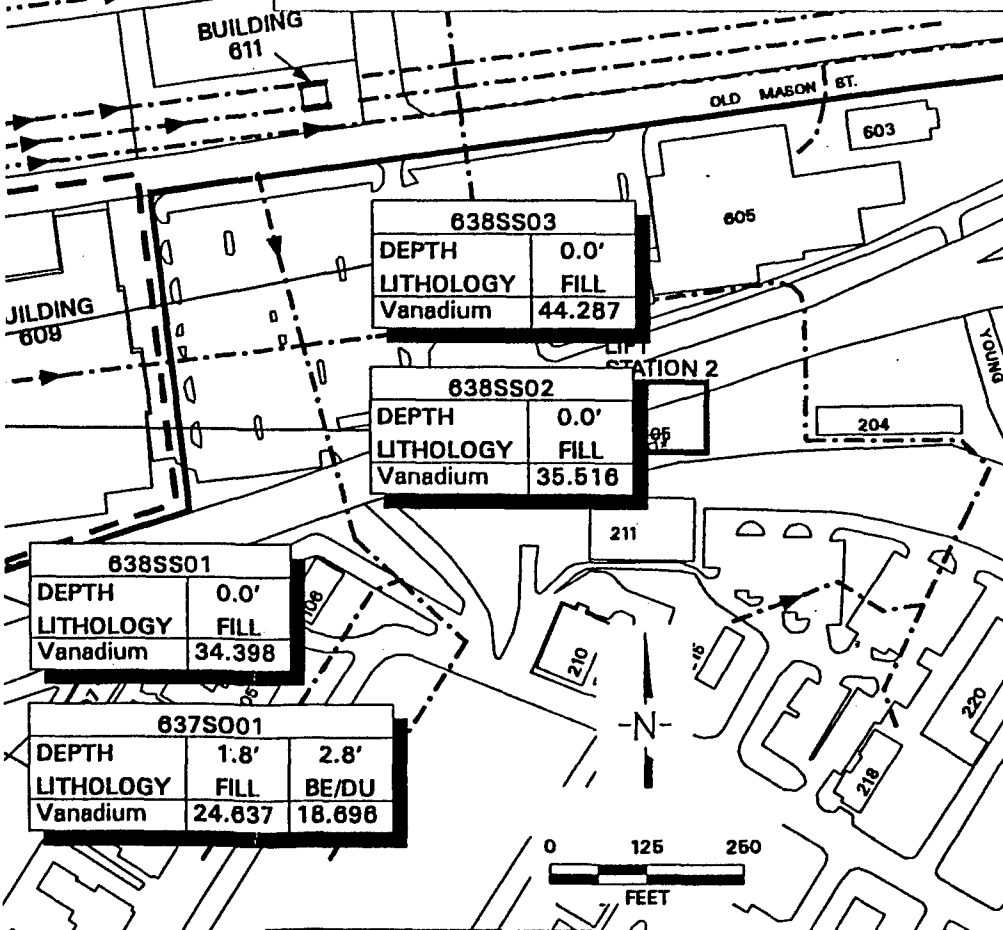
NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.

4. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.

REA BOUNDARY



**DAMES & MOORE**

CRISSY FIELD STUDY AREA  
CONSOLIDATED MOTOR POOL AREA, POL AREA,  
AND BUILDINGS 609 AND 633  
CONCENTRATIONS OF VANADIUM IN SOIL

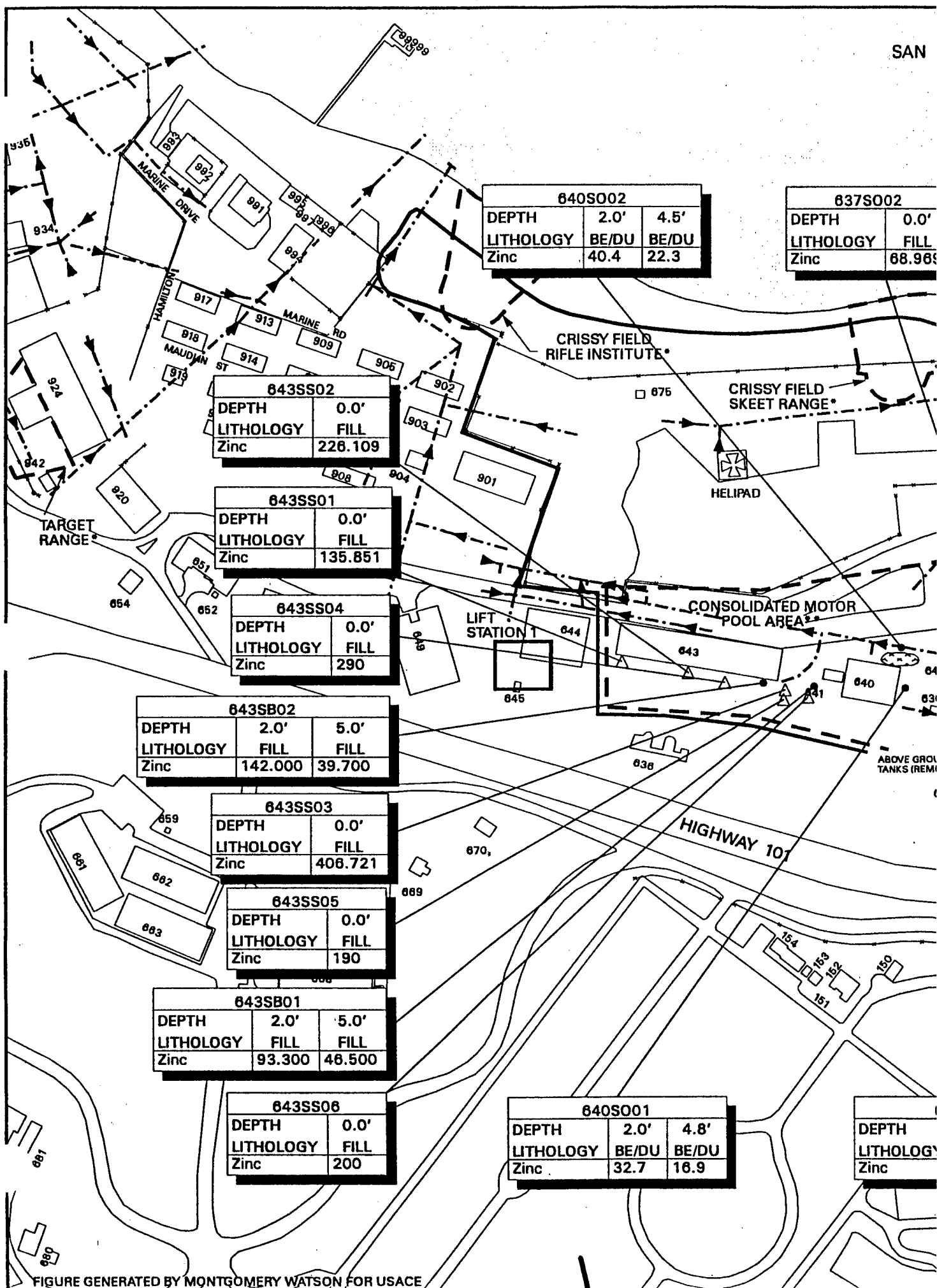
PSF26228

3

Date: January 1997

Figure 5.5-14





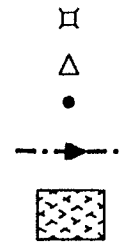


# SAN FRANCISCO BAY

02	0.0'	4.5'
BE/DU	BE/DU	BE/DU
22.3		

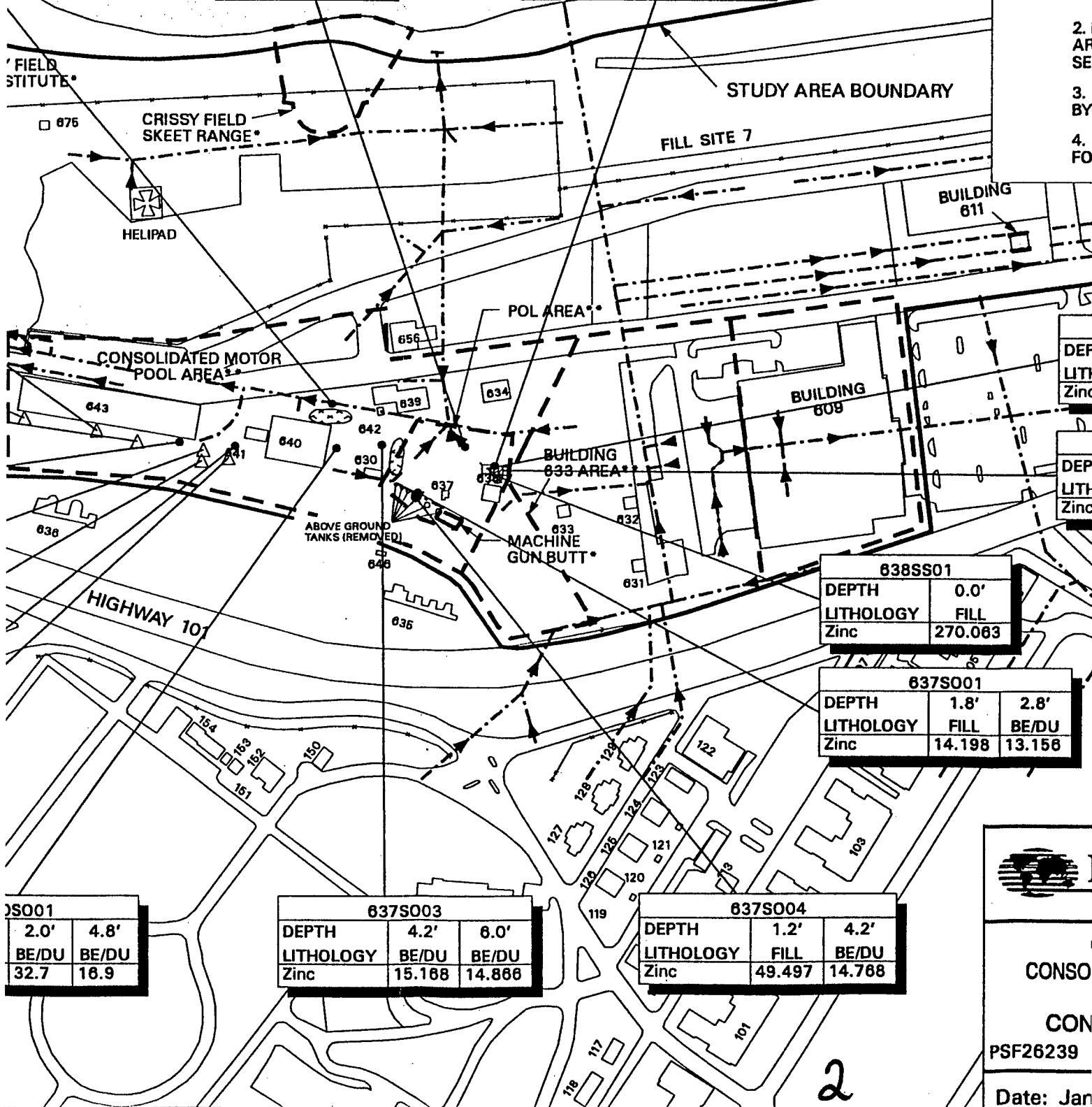
637S002	
DEPTH	0.0'
LITHOLOGY	FILL
Zinc	68.969

638S001		
DEPTH	4.5'	6.0'
LITHOLOGY	BE/DU	BE/DU
Zinc	14.215	14.716



NOTES: 1.

2. I  
AR  
SE  
3.  
BY  
4.  
FO



637S001	2.0'	4.8'
BE/DU	BE/DU	BE/DU
32.7	16.9	

637S003		
DEPTH	4.2'	6.0'
LITHOLOGY	BE/DU	BE/DU
Zinc	15.188	14.866

637S004		
DEPTH	1.2'	4.2'
LITHOLOGY	FILL	BE/DU
Zinc	49.497	14.768

638SS01	
DEPTH	0.0'
LITHOLOGY	FILL
Zinc	270.063

637S001		
DEPTH	1.8'	2.8'
LITHOLOGY	FILL	BE/DU
Zinc	14.198	13.156



CONSO

CON

PSF26239

Date: Jan

2



### EXPLANATION

- ⊠ SEDIMENT SAMPLE FROM A PAVED SURFACE
- △ SURFACE SOIL SAMPLE
- SOIL BORING
- > STORM DRAIN WITH FLOW DIRECTION
- ▨ STAINED AREAS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.

4. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.

EA BOUNDARY

BUILDING 611

OLD MASON ST.

603

638SS03

DEPTH	0.0'
LITHOLOGY	FILL
Zinc	328.484

STATION 2

638SS02

DEPTH	0.0'
LITHOLOGY	FILL
Zinc	353.209

204

638SS01

DEPTH	0.0'
LITHOLOGY	FILL
Zinc	270.083

637S001

DEPTH	1.8'	2.8'
LITHOLOGY	FILL	BE/DU
Zinc	14.198	13.158



**DAMES & MOORE**

CRISSY FIELD STUDY AREA  
CONSOLIDATED MOTOR POOL AREA, POL AREA,  
AND BUILDINGS 609 AND 633  
CONCENTRATIONS OF ZINC IN SOIL

PSF26239

3

Date: January 1997

Figure 5.5-15

4.2'

BE/DU  
14.788



DEPT  
LITHO  
Alum

OF10SD05	
DEPTH	0.0'
LITHOLOGY	MISC
Aluminum	4020

OF10SD04	
DEPTH	0.0'
LITHOLOGY	MISC
Aluminum	4090

OF10SD03	
DEPTH	0.0'
LITHOLOGY	MISC
Aluminum	3300

OF10SD02	
DEPTH	0.0'
LITHOLOGY	MISC
Aluminum	4280

OF10SD01	
DEPTH	0.0'
LITHOLOGY	MISC
Aluminum	4570

LF7SO01	
DEPTH	4.2'
LITHOLOGY	BE/DU
Aluminum	5897.801

LF7SO02	
DEPTH	4.3'
LITHOLOGY	BE/DU
Aluminum	6642.821

LF7TP02	
DEPTH	7.0'
LITHOLOGY	BE/DU
Aluminum	6217.685

LF7TP03	
DEPTH	7.0'
LITHOLOGY	BE/DU
Aluminum	7552.570

LF7TP01	
DEPTH	6.0'
LITHOLOGY	BE/DU
Aluminum	5200.913

CRISSY FIELD  
RIFLE INSTITUTE\*

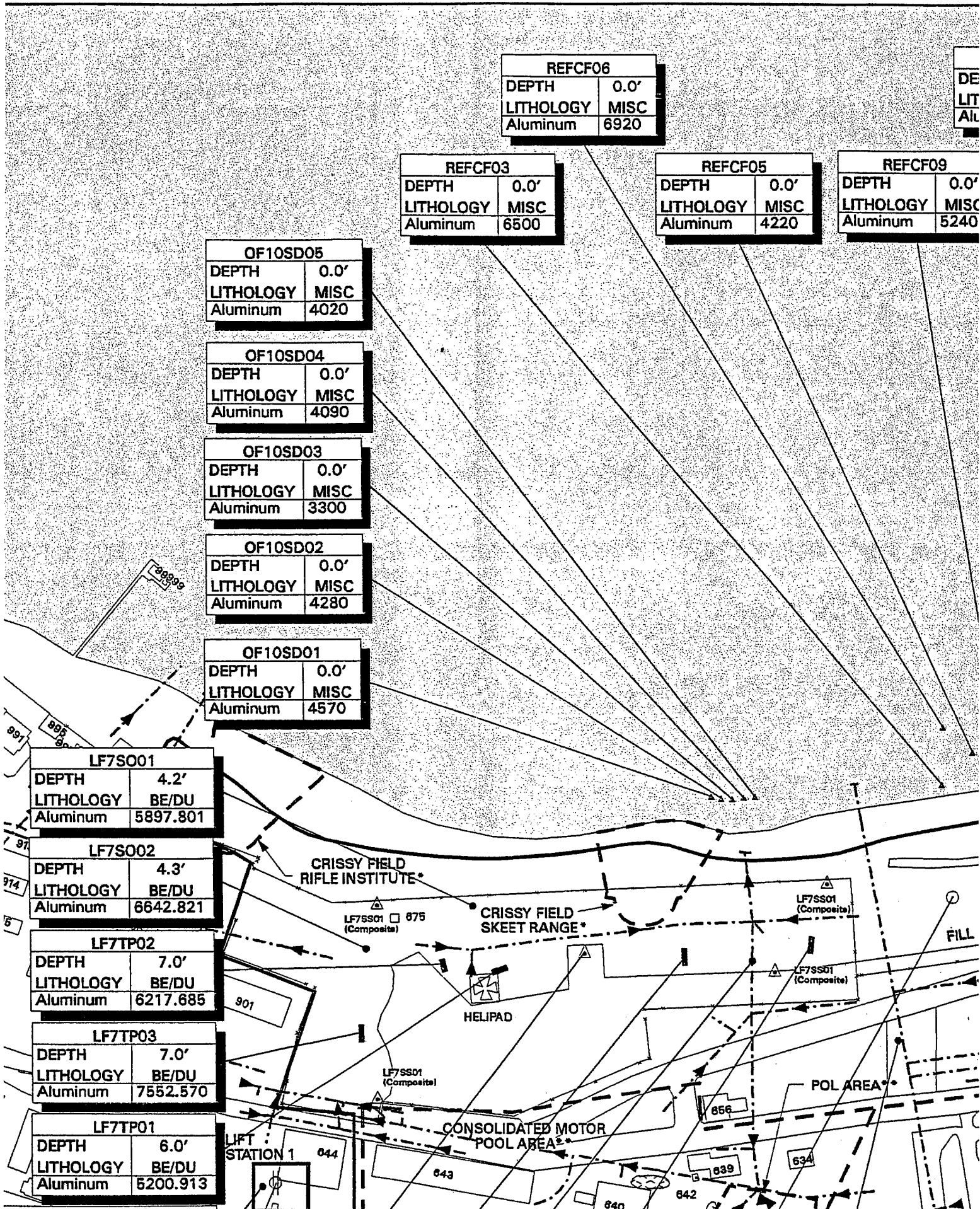
LF7SS01 875  
(Composite)

LF7SS01  
(Composite)

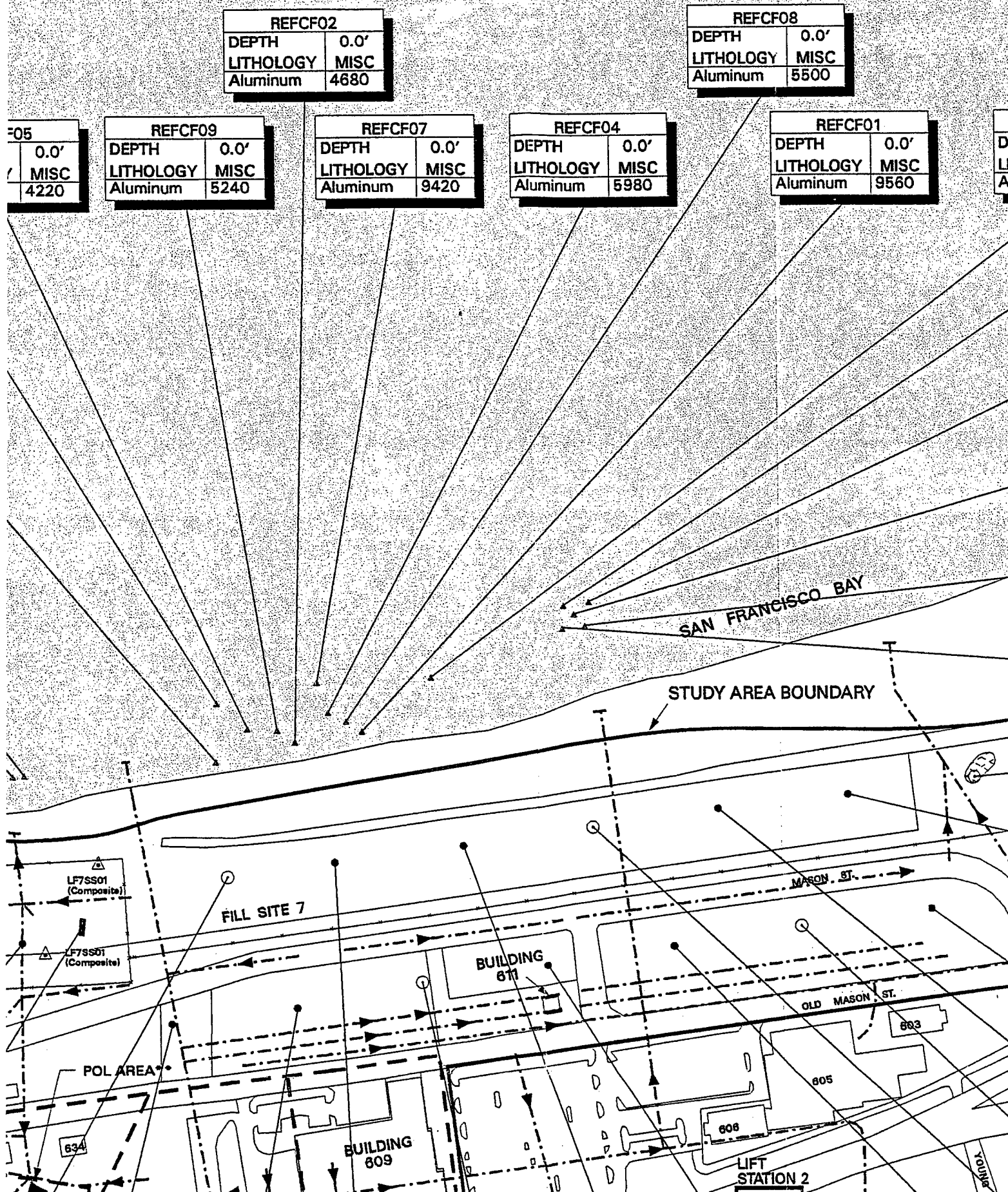
LIFT  
STATION 1

CELL SS02

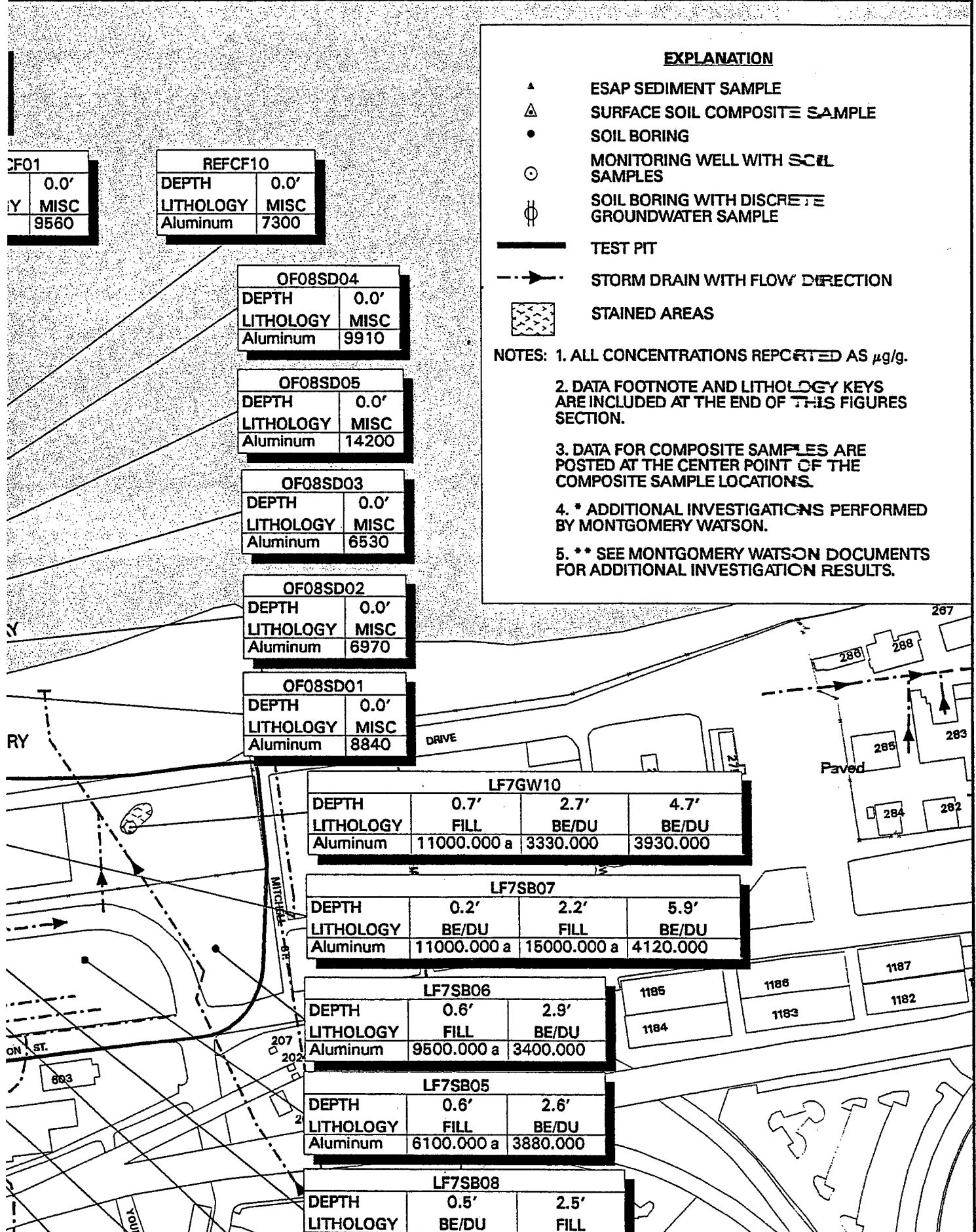














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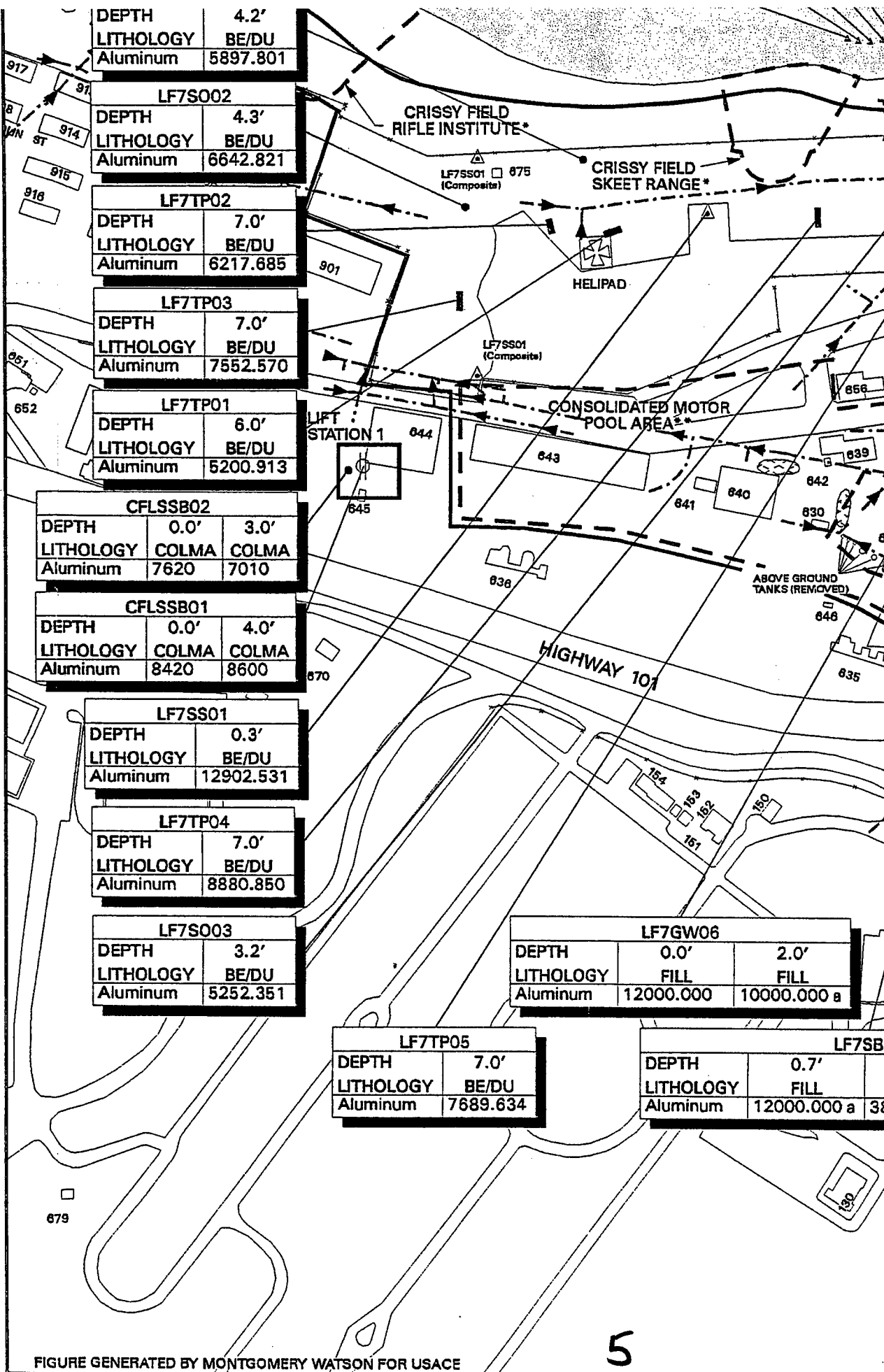
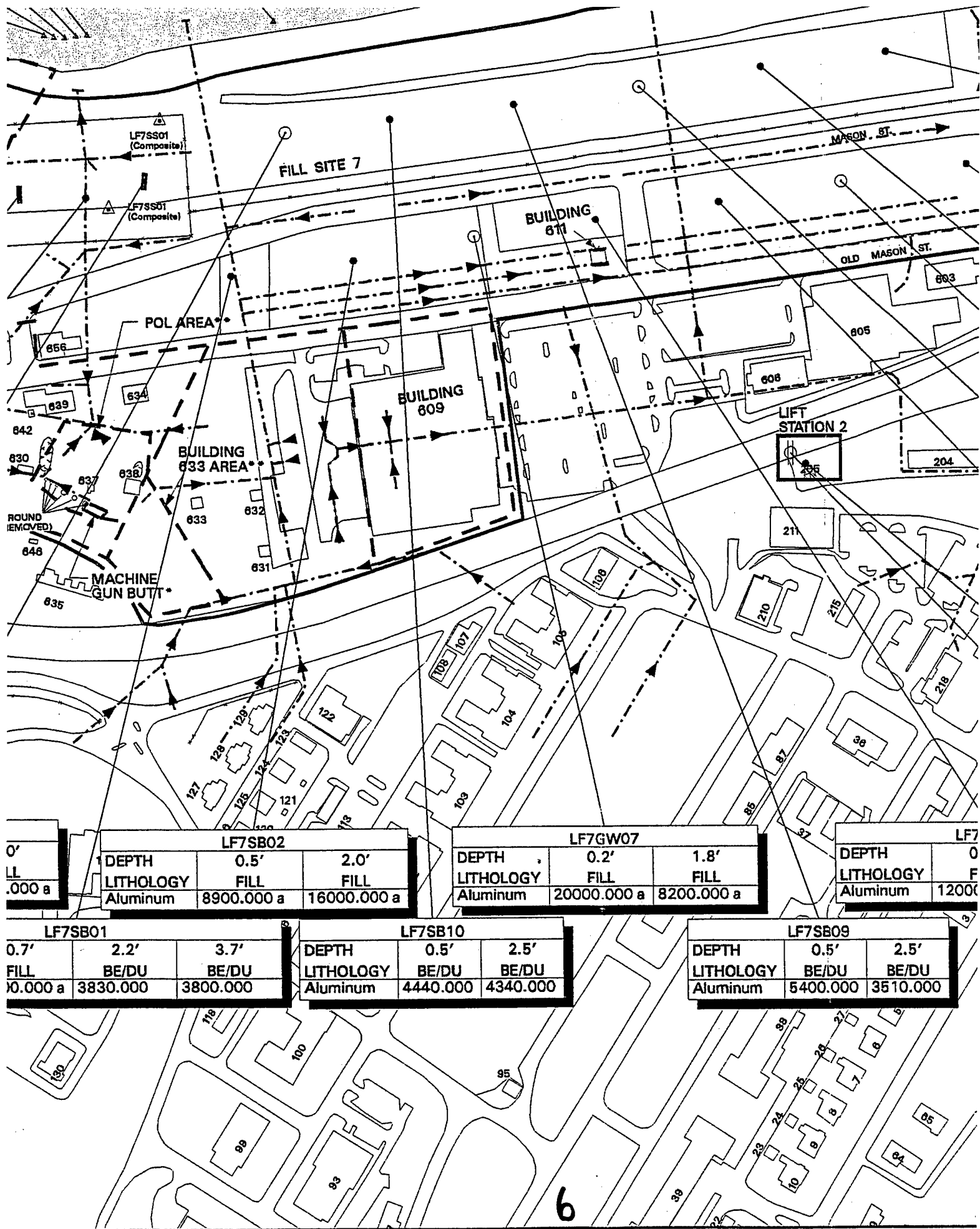


FIGURE GENERATED BY MONTGOMERY WATSON FOR USACE





LF7SB02			
DEPTH	0.5'	2.0'	
LITHOLOGY	FILL	FILL	
Aluminum	8900.000 a	16000.000 a	

LF7GW07			
DEPTH	0.2'	1.8'	
LITHOLOGY	FILL	FILL	
Aluminum	20000.000 a	8200.000 a	

LF7			
DEPTH	0		
LITHOLOGY	F		
Aluminum	12000		

LF7SB01			
0.7'	2.2'	3.7'	
FILL	BE/DU	BE/DU	
10.000 a	3830.000	3800.000	

LF7SB10			
DEPTH	0.5'	2.5'	
LITHOLOGY	BE/DU	BE/DU	
Aluminum	4440.000	4340.000	

LF7SB09			
DEPTH	0.5'	2.5'	
LITHOLOGY	BE/DU	BE/DU	
Aluminum	5400.000	3510.000	



DEPTH	0.7'	2.7'	4.7'
LITHOLOGY	FILL	BE/DU	BE/DU
Aluminum	11000.000 a	3330.000	3930.000

LF7SB07			
DEPTH	0.2'	2.2'	5.9'
LITHOLOGY	BE/DU	FILL	BE/DU
Aluminum	11000.000 a	15000.000 a	4120.000

LF7SB06		
DEPTH	0.6'	2.9'
LITHOLOGY	FILL	BE/DU
Aluminum	9500.000 a	3400.000

LF7SB05		
DEPTH	0.6'	2.6'
LITHOLOGY	FILL	BE/DU
Aluminum	6100.000 a	3880.000

LF7SB08		
DEPTH	0.5'	2.5'
LITHOLOGY	BE/DU	FILL
Aluminum	11000.000 a	3760.000

LF7GW09			
DEPTH	1.1'	2.6'	4.4'
LITHOLOGY	BE/DU	BE/DU	BE/DU
Aluminum	4560.000	3840.000	15000.000 a

LF7GW08		
DEPTH	0.5'	3.5'
LITHOLOGY	BE/DU	BE/DU
Aluminum	9200.000 a	6460.000

LF7SB04		
DEPTH	1.0'	3.0'
LITHOLOGY	FILL	BE/DU
Aluminum	5300.000	4050.000

CFLSSB04	
DEPTH	0.5'
LITHOLOGY	COLMA
Aluminum	8960

DEPTH	1.8'
LITHOLOGY	FILL
Aluminum	0.000 a

LF7SB03		
DEPTH	0.5'	2.5'
LITHOLOGY	FILL	BE/DU
Aluminum	12000.000 a	4050.000

CFLSSB03	
DEPTH	0.5'
LITHOLOGY	BE/DU
Aluminum	17500 a

LF7SB09		
DEPTH	0.5'	2.5'
LITHOLOGY	BE/DU	BE/DU
Aluminum	5400.000	3510.000



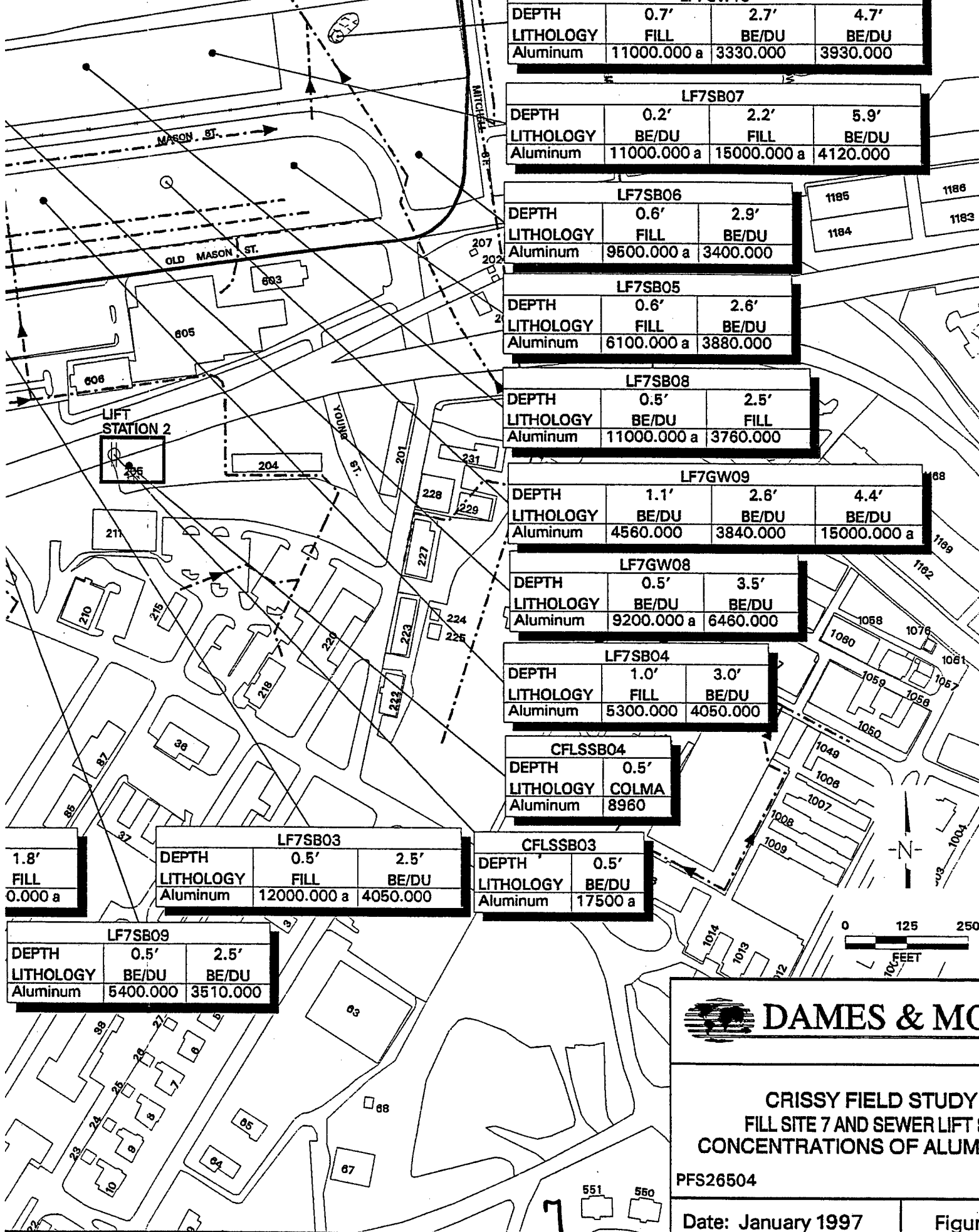
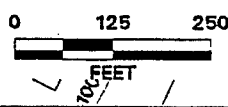
**DAMES & MOORE**

**CRISSY FIELD STUDY  
FILL SITE 7 AND SEWER LIFT  
CONCENTRATIONS OF ALUMINUM**

PFS26504

Date: January 1997

Figure





DEPTH	0.7'	2.7'	4.7'
LITHOLOGY	FILL	BE/DU	BE/DU
Aluminum	11000.000 a	3330.000	3930.000

LF7SB07			
DEPTH	0.2'	2.2'	5.9'
LITHOLOGY	BE/DU	FILL	BE/DU
Aluminum	11000.000 a	15000.000 a	4120.000

LF7SB06		
DEPTH	0.6'	2.9'
LITHOLOGY	FILL	BE/DU
Aluminum	9500.000 a	3400.000

LF7SB05		
DEPTH	0.6'	2.6'
LITHOLOGY	FILL	BE/DU
Aluminum	6100.000 a	3880.000

LF7SB08		
DEPTH	0.5'	2.5'
LITHOLOGY	BE/DU	FILL
Aluminum	11000.000 a	3760.000

LF7GW09			
DEPTH	1.1'	2.6'	4.4'
LITHOLOGY	BE/DU	BE/DU	BE/DU
Aluminum	4560.000	3840.000	15000.000 a

LF7GW08		
DEPTH	0.5'	3.5'
LITHOLOGY	BE/DU	BE/DU
Aluminum	9200.000 a	6460.000

LF7SB04		
DEPTH	1.0'	3.0'
LITHOLOGY	FILL	BE/DU
Aluminum	5300.000	4050.000

CFLSSB04	
DEPTH	0.5'
LITHOLOGY	COLMA
Aluminum	8960

CFLSSB03	
DEPTH	0.5'
LITHOLOGY	BE/DU
Aluminum	17500 a



**DAMES & MOORE**

**CRISSY FIELD STUDY AREA  
FILL SITE 7 AND SEWER LIFT STATIONS  
CONCENTRATIONS OF ALUMINUM IN SOIL**

PFS26504

8

Date: January 1997

Figure 5.5-16



OF10SD05	
DEPTH	0.0'
LITHOLOGY	MISC
Arsenic	3.58

OF10SD04	
DEPTH	0.0'
LITHOLOGY	MISC
Arsenic	3.54

OF10SD03	
DEPTH	0.0'
LITHOLOGY	MISC
Arsenic	3.8

OF10SD02	
DEPTH	0.0'
LITHOLOGY	MISC
Arsenic	3.71

OF10SD01	
DEPTH	0.0'
LITHOLOGY	MISC
Arsenic	3.8

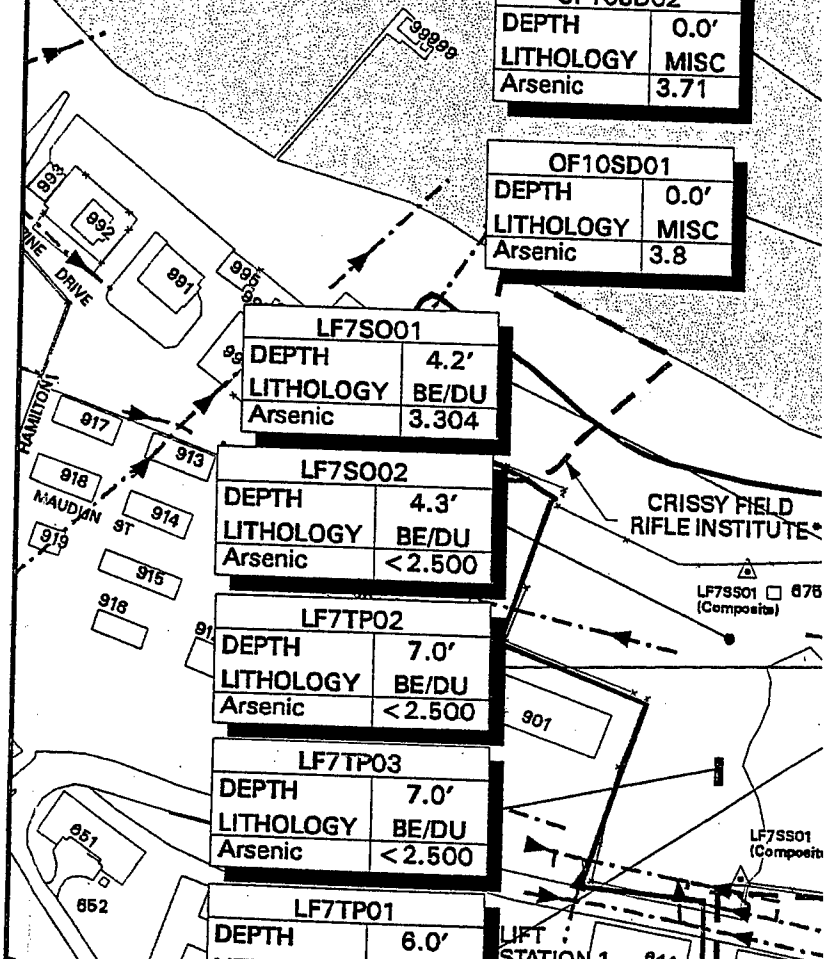
LF7SO01	
DEPTH	4.2'
LITHOLOGY	BE/DU
Arsenic	3.304

LF7SO02	
DEPTH	4.3'
LITHOLOGY	BE/DU
Arsenic	<2.500

LF7TP02	
DEPTH	7.0'
LITHOLOGY	BE/DU
Arsenic	<2.500

LF7TP03	
DEPTH	7.0'
LITHOLOGY	BE/DU
Arsenic	<2.500

LF7TP01	
DEPTH	6.0'





REFCF06	
DEPTH	0.0'
LITHOLOGY	MISC
Arsenic	3.71

REFCF03	
DEPTH	0.0'
LITHOLOGY	MISC
Arsenic	2.9

REFCF05	
DEPTH	0.0'
LITHOLOGY	MISC
Arsenic	2

REFCF04	
DEPTH	0.0'
LITHOLOGY	MISC
Arsenic	2

OF10SD05	
DEPTH	0.0'
LITHOLOGY	MISC
Arsenic	3.58

OF10SD04	
DEPTH	0.0'
LITHOLOGY	MISC
Arsenic	3.54

OF10SD03	
DEPTH	0.0'
LITHOLOGY	MISC
Arsenic	3.8

OF10SD02	
DEPTH	0.0'
LITHOLOGY	MISC
Arsenic	3.71

OF10SD01	
DEPTH	0.0'
LITHOLOGY	MISC
Arsenic	3.8

LF7SO01	
DEPTH	4.2'
LITHOLOGY	BE/DU
Arsenic	3.304

LF7SO02	
DEPTH	4.3'
LITHOLOGY	BE/DU
Arsenic	<2.500

LF7TP02	
DEPTH	7.0'
LITHOLOGY	BE/DU
Arsenic	<2.500

LF7TP03	
DEPTH	7.0'
LITHOLOGY	BE/DU
Arsenic	<2.500

LF7TP01	
DEPTH	6.0'
LITHOLOGY	BE/DU
Arsenic	<2.500

CRISSY FIELD  
RIFLE INSTITUTE\*

CRISSY FIELD  
SKEET RANGE\*

HELIPAD

LF7SS01  
(Composite)

LF7SS01  
(Composite)

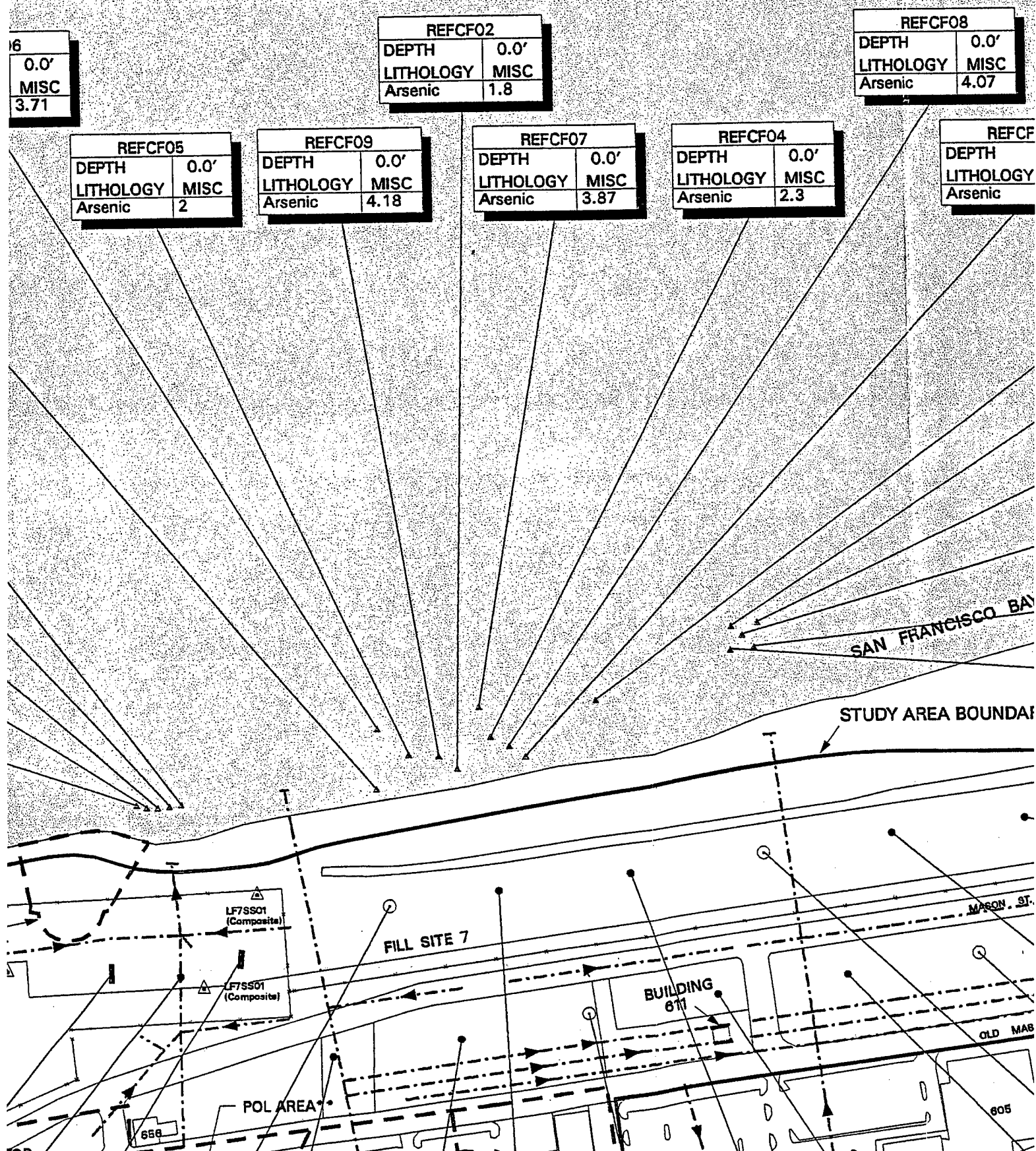
LF7SS01  
(Composite)

POL AREA\*

CONSOLIDATED MOTOR  
POOL AREA\*

LIFT  
STATION 1







08
0.0'
MISC
4.07

REFCF01	
DEPTH	0.0'
LITHOLOGY	MISC
Arsenic	2.9

REFCF10	
DEPTH	0.0'
LITHOLOGY	MISC
Arsenic	4.24

OF08SD04	
DEPTH	0.0'
LITHOLOGY	MISC
Arsenic	4.3

OF08SD05	
DEPTH	0.0'
LITHOLOGY	MISC
Arsenic	6.06

OF08SD03	
DEPTH	0.0'
LITHOLOGY	MISC
Arsenic	4.06

OF08SD02	
DEPTH	0.0'
LITHOLOGY	MISC
Arsenic	3.73

OF08SD01	
DEPTH	0.0'
LITHOLOGY	MISC
Arsenic	4.19

LF7GW10			
DEPTH	0.7'	2.7'	4.7'
LITHOLOGY	FILL	BE/DU	BE/DU
Arsenic	2.870	2.510	2.190

LF7SB07			
DEPTH	0.2'	2.2'	5.9'
LITHOLOGY	BE/DU	FILL	BE/DU
Arsenic	4.100 a	<0.500 a	3.320

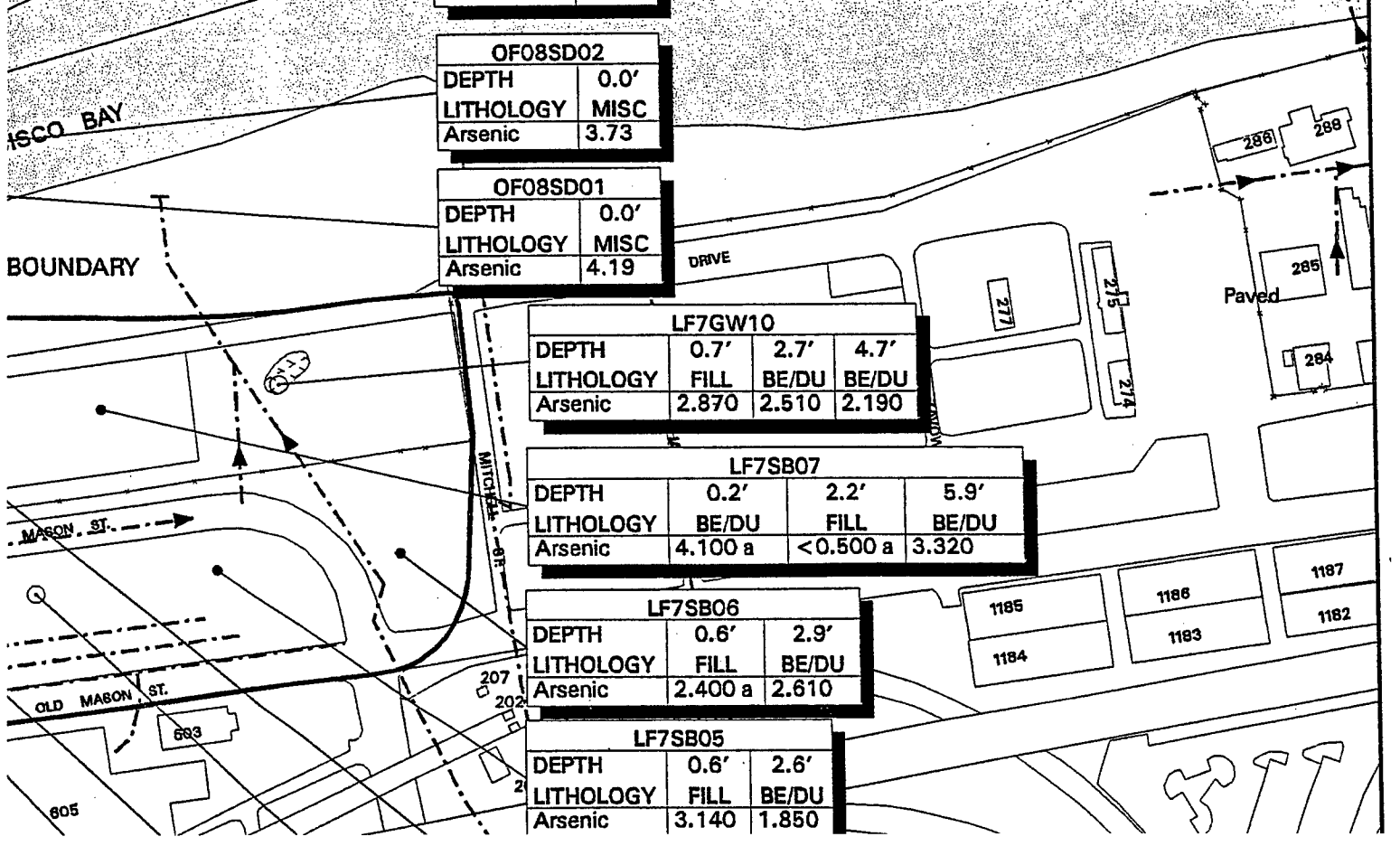
LF7SB06		
DEPTH	0.6'	2.9'
LITHOLOGY	FILL	BE/DU
Arsenic	2.400 a	2.610

LF7SB05		
DEPTH	0.6'	2.6'
LITHOLOGY	FILL	BE/DU
Arsenic	3.140	1.850

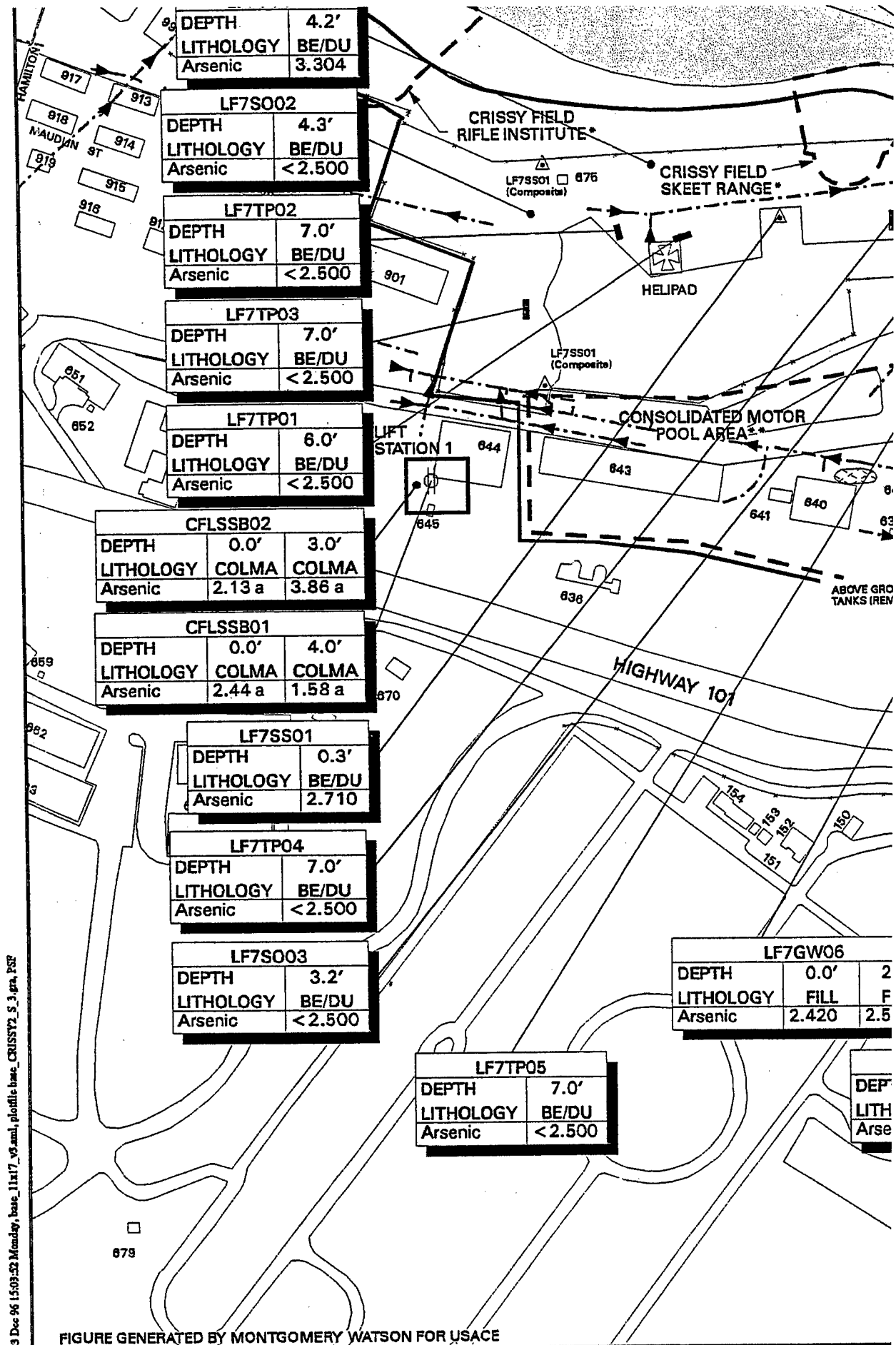
**EXPLANATION**

- ▲ ESAP SEDIMENT SAMPLE
- △ SURFACE SOIL COMPOSITE SAMPLE
- SOIL BORING
- MONITORING WELL WITH SOIL SAMPLES
- ⊗ SOIL BORING WITH DISCRETE GROUNDWATER SAMPLE
- TEST PIT
- > STORM DRAIN WITH FLOW DIRECTION
- ▨ STAINED AREAS

- NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .
2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.
3. DATA FOR COMPOSITE SAMPLES ARE POSTED AT THE CENTER POINT OF THE COMPOSITE SAMPLE LOCATIONS.
4. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.
5. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.



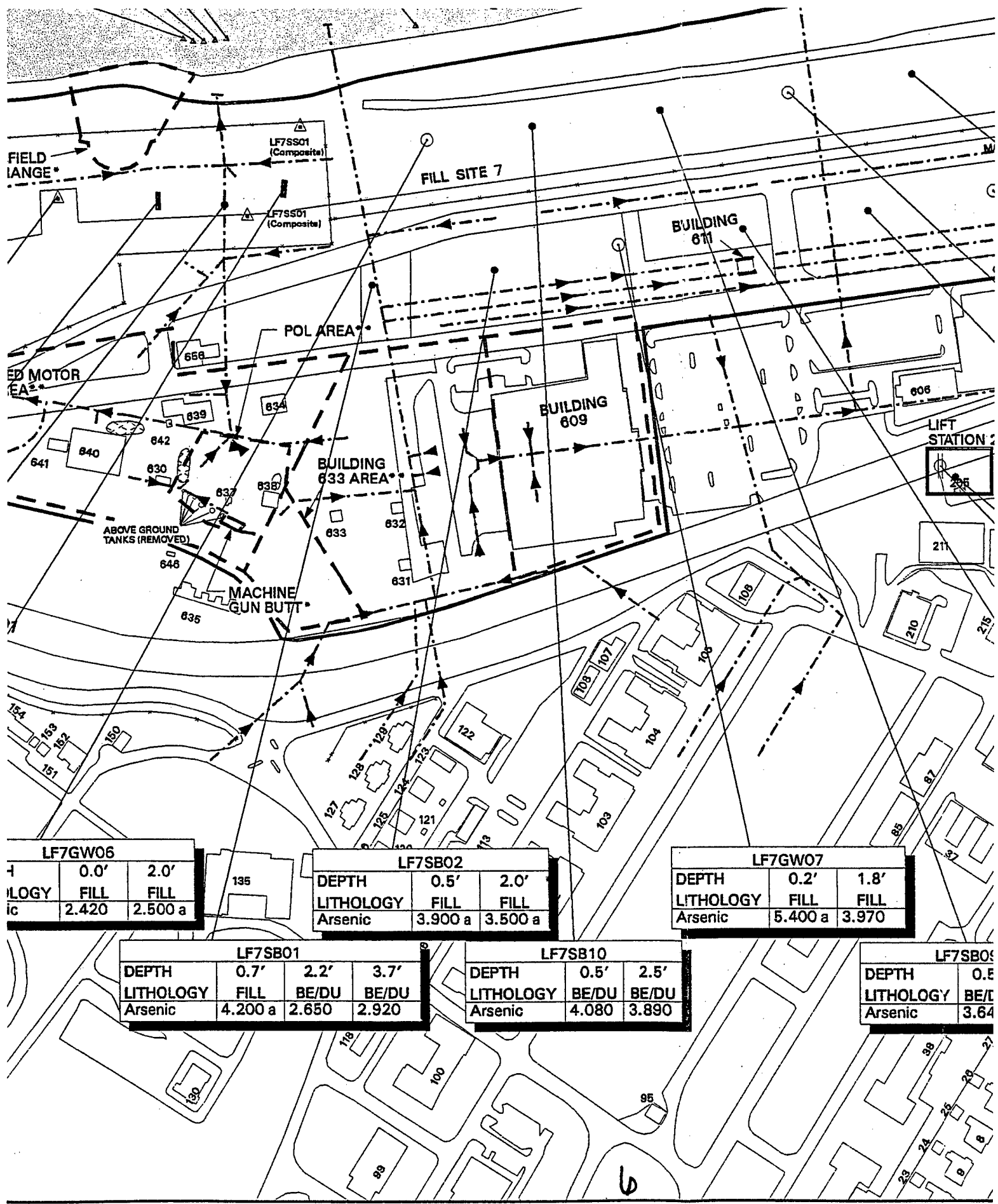




23 Dec 96 15:03:52 Monday base\_11x17\_v0.xml, profile base\_CRISSY2\_S\_3.gra, PDF

FIGURE GENERATED BY MONTGOMERY WATSON FOR USACE





LF7GW06		
DEPTH	0.0'	2.0'
LITHOLOGY	FILL	FILL
Arsenic	2.420	2.500 a

LF7SB02		
DEPTH	0.5'	2.0'
LITHOLOGY	FILL	FILL
Arsenic	3.900 a	3.500 a

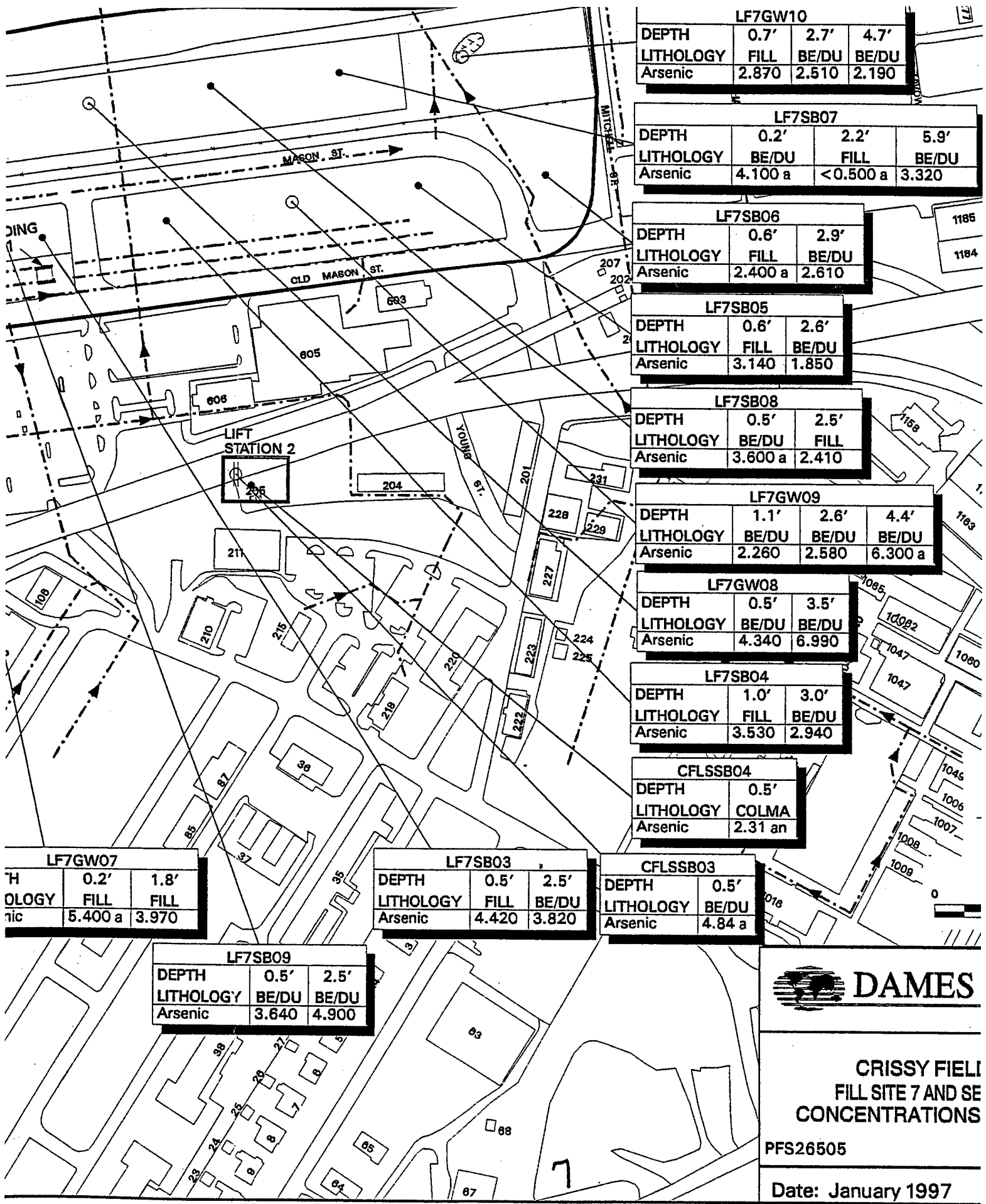
LF7GW07		
DEPTH	0.2'	1.8'
LITHOLOGY	FILL	FILL
Arsenic	5.400 a	3.970

LF7SB01			
DEPTH	0.7'	2.2'	3.7'
LITHOLOGY	FILL	BE/DU	BE/DU
Arsenic	4.200 a	2.650	2.920

LF7SB10		
DEPTH	0.5'	2.5'
LITHOLOGY	BE/DU	BE/DU
Arsenic	4.080	3.890

LF7SB05	
DEPTH	0.5'
LITHOLOGY	BE/DU
Arsenic	3.64





LF7GW10			
DEPTH	0.7'	2.7'	4.7'
LITHOLOGY	FILL	BE/DU	BE/DU
Arsenic	2.870	2.510	2.190

LF7SB07			
DEPTH	0.2'	2.2'	5.9'
LITHOLOGY	BE/DU	FILL	BE/DU
Arsenic	4.100 a	<0.500 a	3.320

LF7SB06		
DEPTH	0.6'	2.9'
LITHOLOGY	FILL	BE/DU
Arsenic	2.400 a	2.610

LF7SB05		
DEPTH	0.6'	2.6'
LITHOLOGY	FILL	BE/DU
Arsenic	3.140	1.850

LF7SB08		
DEPTH	0.5'	2.5'
LITHOLOGY	BE/DU	FILL
Arsenic	3.600 a	2.410

LF7GW09			
DEPTH	1.1'	2.6'	4.4'
LITHOLOGY	BE/DU	BE/DU	BE/DU
Arsenic	2.260	2.580	6.300 a

LF7GW08		
DEPTH	0.5'	3.5'
LITHOLOGY	BE/DU	BE/DU
Arsenic	4.340	6.990

LF7SB04		
DEPTH	1.0'	3.0'
LITHOLOGY	FILL	BE/DU
Arsenic	3.530	2.940

CFLSSB04	
DEPTH	0.5'
LITHOLOGY	COLMA
Arsenic	2.31 an

LF7GW07		
DEPTH	0.2'	1.8'
LITHOLOGY	FILL	FILL
Arsenic	5.400 a	3.970

LF7SB03		
DEPTH	0.5'	2.5'
LITHOLOGY	FILL	BE/DU
Arsenic	4.420	3.820

CFLSSB03	
DEPTH	0.5'
LITHOLOGY	BE/DU
Arsenic	4.84 a

LF7SB09		
DEPTH	0.5'	2.5'
LITHOLOGY	BE/DU	BE/DU
Arsenic	3.640	4.900



CRISSY FIELD  
FILL SITE 7 AND SE  
CONCENTRATIONS

PFS26505

Date: January 1997



LF7GW10			
DEPTH	0.7'	2.7'	4.7'
LITHOLOGY	FILL	BE/DU	BE/DU
Arsenic	2.870	2.510	2.190

LF7SB07			
DEPTH	0.2'	2.2'	5.9'
LITHOLOGY	BE/DU	FILL	BE/DU
Arsenic	4.100 a	<0.500 a	3.320

LF7SB06		
DEPTH	0.6'	2.9'
LITHOLOGY	FILL	BE/DU
Arsenic	2.400 a	2.610

LF7SB05		
DEPTH	0.6'	2.6'
LITHOLOGY	FILL	BE/DU
Arsenic	3.140	1.850

LF7SB08		
DEPTH	0.5'	2.5'
LITHOLOGY	BE/DU	FILL
Arsenic	3.600 a	2.410

LF7GW09			
DEPTH	1.1'	2.6'	4.4'
LITHOLOGY	BE/DU	BE/DU	BE/DU
Arsenic	2.260	2.580	6.300 a

LF7GW08		
DEPTH	0.5'	3.5'
LITHOLOGY	BE/DU	BE/DU
Arsenic	4.340	6.990

LF7SB04		
DEPTH	1.0'	3.0'
LITHOLOGY	FILL	BE/DU
Arsenic	3.530	2.940

CFLSSB04	
DEPTH	0.5'
LITHOLOGY	COLMA
Arsenic	2.31 an

CFLSSB03	
DEPTH	0.5'
LITHOLOGY	BE/DU
Arsenic	4.84 a



**DAMES & MOORE**

**CRISSY FIELD STUDY AREA  
FILL SITE 7 AND SEWER LIFT STATIONS  
CONCENTRATIONS OF ARSENIC IN SOIL**

PFS26505

8

Date: January 1997

Figure 5.5-17



0.0'
ISC
8

REFCF02		
DEPTH	0.0'	
LITHOLOGY	MISC	
Barium	13.9	

REFCF08		
DEPTH	0.0'	
LITHOLOGY	MISC	
Barium	14.6	

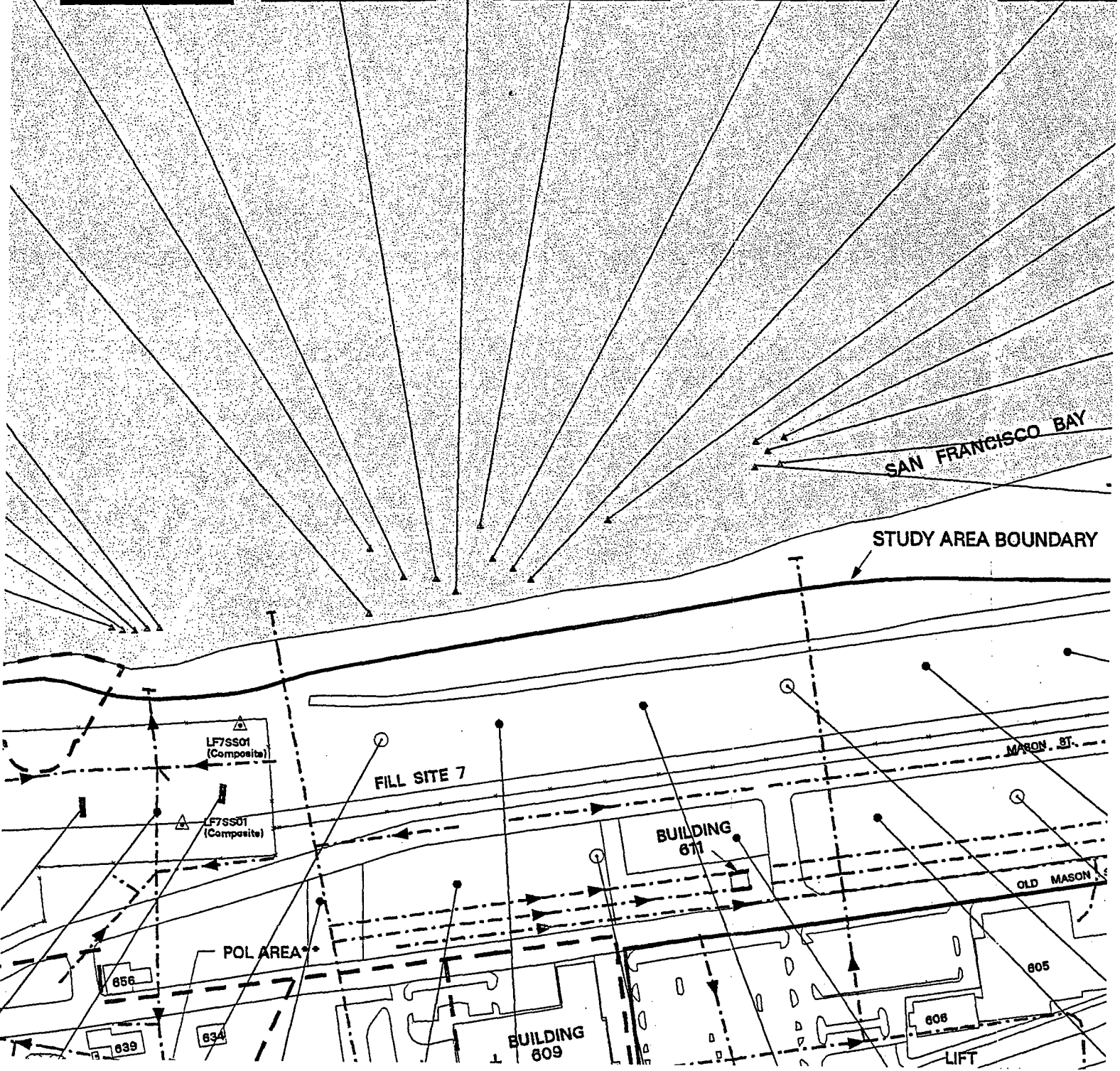
REFCF05		
DEPTH	0.0'	
LITHOLOGY	MISC	
Barium	10.6	

REFCF09		
DEPTH	0.0'	
LITHOLOGY	MISC	
Barium	15.6	

REFCF07		
DEPTH	0.0'	
LITHOLOGY	MISC	
Barium	22.4	

REFCF04		
DEPTH	0.0'	
LITHOLOGY	MISC	
Barium	16.8	

REFCF01		
DEPTH	0.0'	
LITHOLOGY	MISC	
Barium	24.0	





REFCF06	
DEPTH	0.0'
LITHOLOGY	MISC
Barium	16.8

REFCF03	
DEPTH	0.0'
LITHOLOGY	MISC
Barium	18.5

REFCF05	
DEPTH	0.0'
LITHOLOGY	MISC
Barium	10.6

OF10SD05	
DEPTH	0.0'
LITHOLOGY	MISC
Barium	9.05

OF10SD04	
DEPTH	0.0'
LITHOLOGY	MISC
Barium	8.6

OF10SD03	
DEPTH	0.0'
LITHOLOGY	MISC
Barium	6.85

OF10SD02	
DEPTH	0.0'
LITHOLOGY	MISC
Barium	9.66

OF10SD01	
DEPTH	0.0'
LITHOLOGY	MISC
Barium	8.48

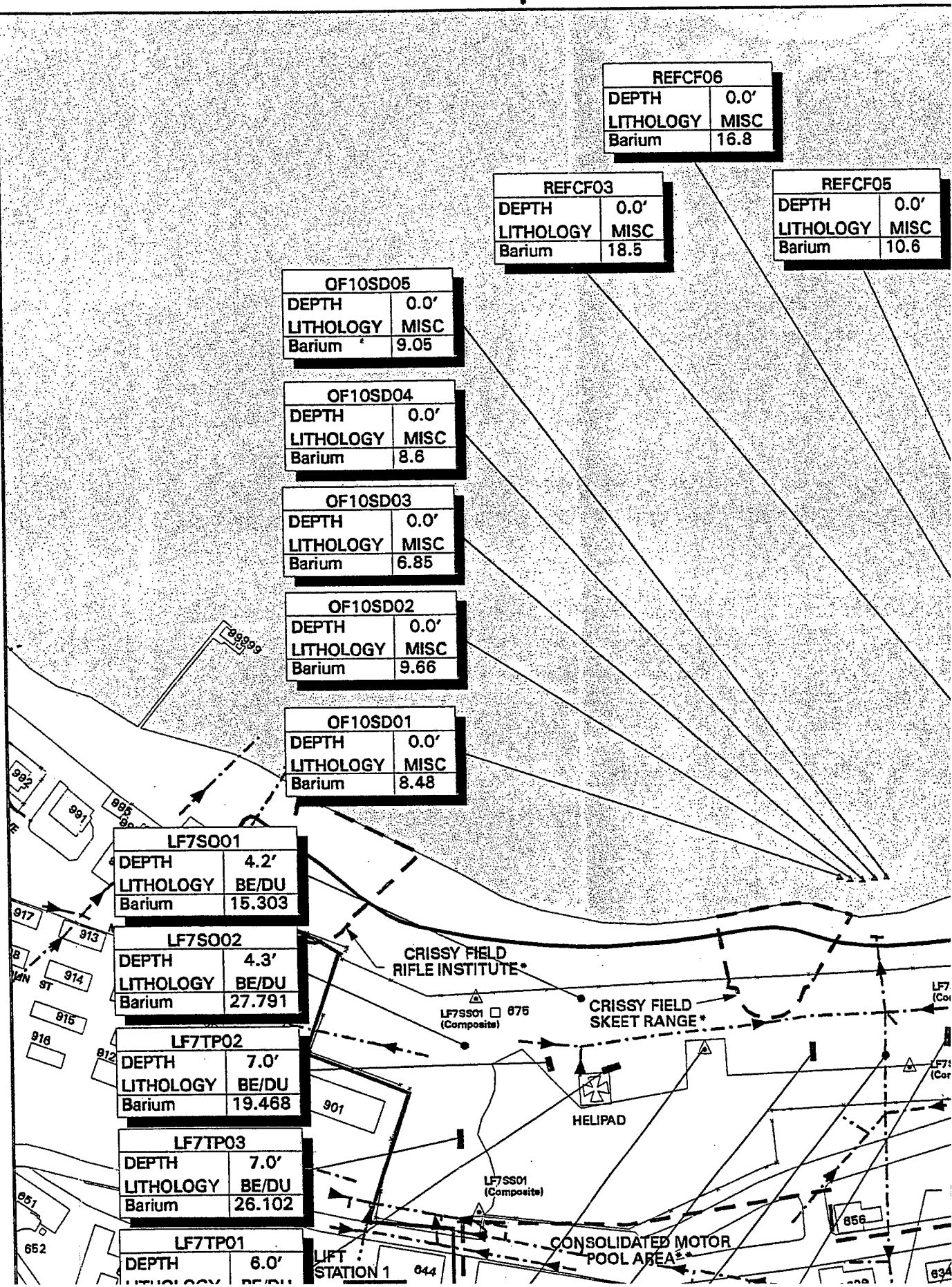
LF7SO01	
DEPTH	4.2'
LITHOLOGY	BE/DU
Barium	15.303

LF7SO02	
DEPTH	4.3'
LITHOLOGY	BE/DU
Barium	27.791

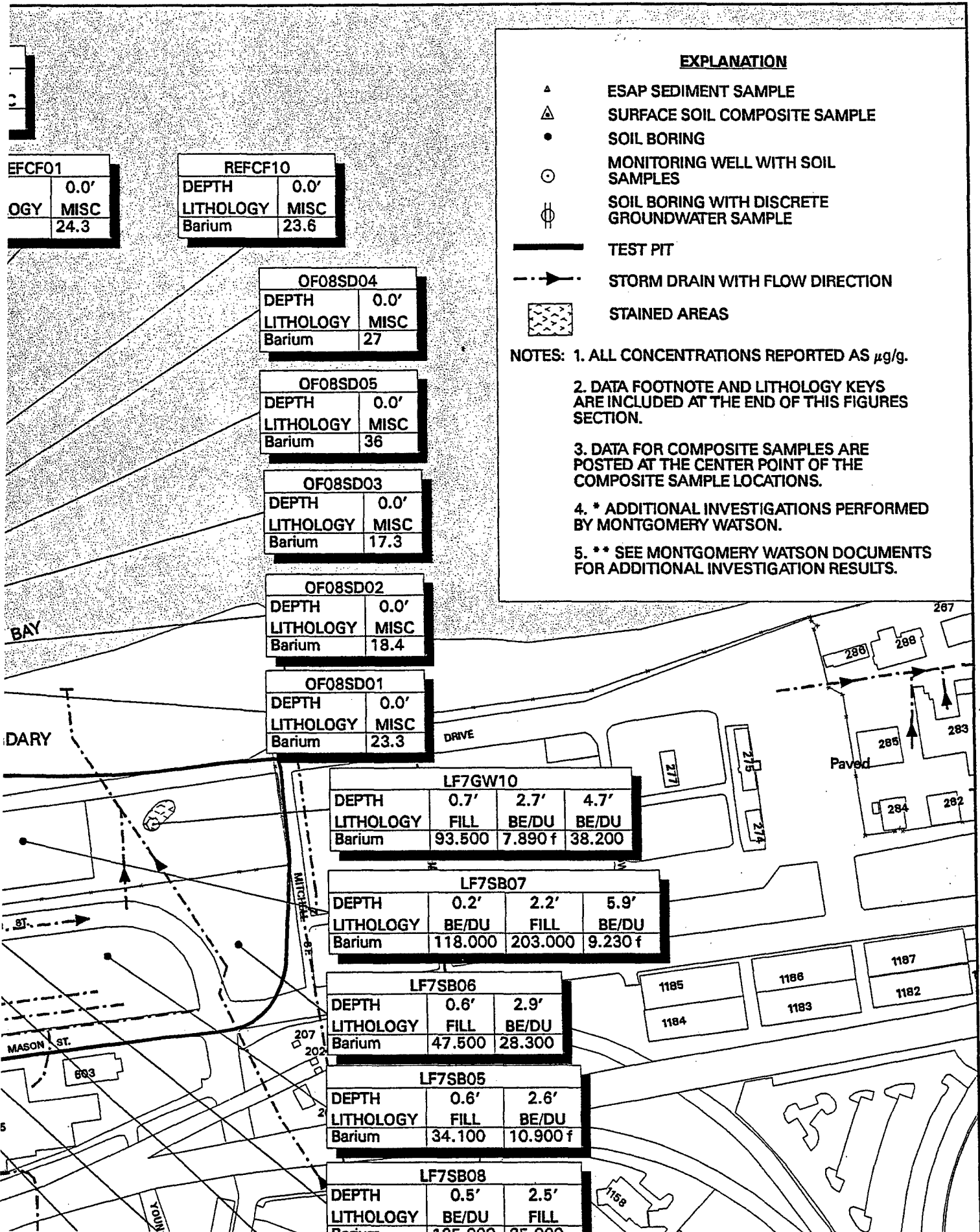
LF7TP02	
DEPTH	7.0'
LITHOLOGY	BE/DU
Barium	19.468

LF7TP03	
DEPTH	7.0'
LITHOLOGY	BE/DU
Barium	26.102

LF7TP01	
DEPTH	6.0'
LITHOLOGY	BE/DU
Barium	









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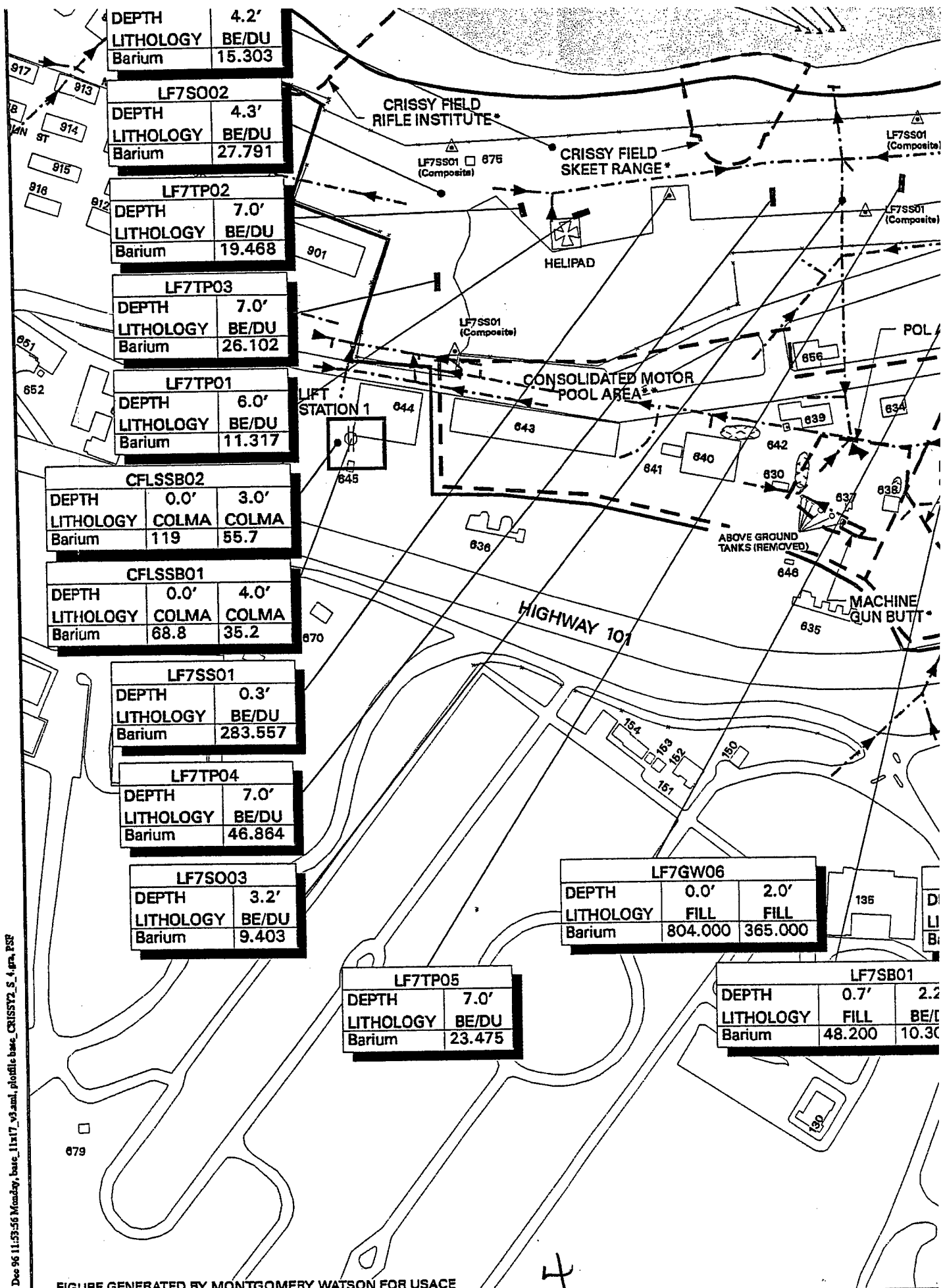
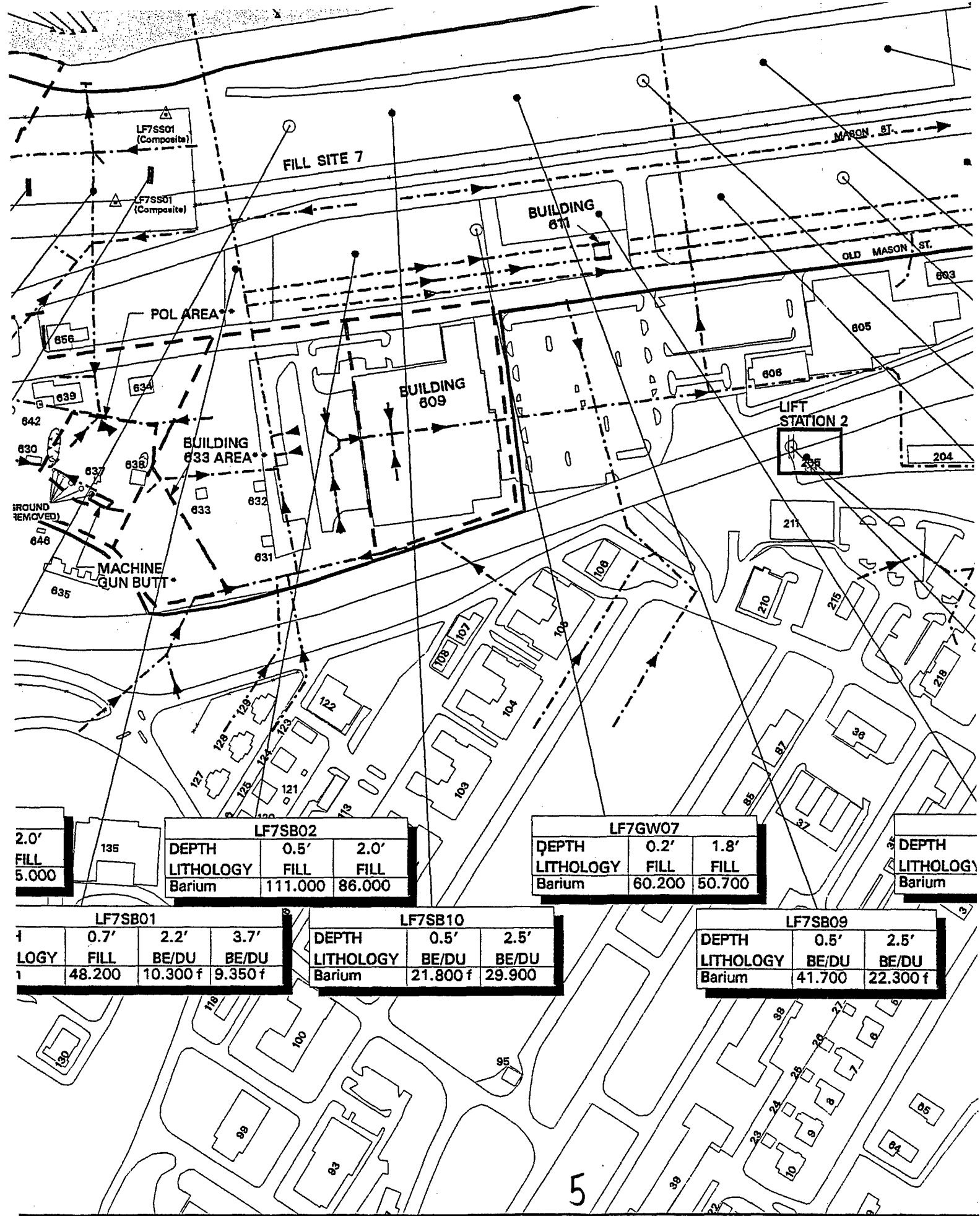


FIGURE GENERATED BY MONTGOMERY WATSON FOR USACE





2.0'  
FILL  
5.000

LF7SB02			
DEPTH	0.5'	2.0'	
LITHOLOGY	FILL	FILL	
Barium	111.000	86.000	

LF7GW07			
DEPTH	0.2'	1.8'	
LITHOLOGY	FILL	FILL	
Barium	60.200	50.700	

DEPTH	
LITHOLOGY	
Barium	

LF7SB01			
DEPTH	0.7'	2.2'	3.7'
LITHOLOGY	FILL	BE/DU	BE/DU
1	48.200	10.300 f	9.350 f

LF7SB10			
DEPTH	0.5'	2.5'	
LITHOLOGY	BE/DU	BE/DU	
Barium	21.800 f	29.900	

LF7SB09			
DEPTH	0.5'	2.5'	
LITHOLOGY	BE/DU	BE/DU	
Barium	41.700	22.300 f	



DEPTH	0.7'	2.7'	4.7'
LITHOLOGY	FILL	BE/DU	BE/DU
Barium	93.500	7.890 f	38.200

LF7SB07			
DEPTH	0.2'	2.2'	5.9'
LITHOLOGY	BE/DU	FILL	BE/DU
Barium	118.000	203.000	9.230 f

LF7SB06			
DEPTH	0.6'	2.9'	
LITHOLOGY	FILL	BE/DU	
Barium	47.500	28.300	

LF7SB05			
DEPTH	0.6'	2.6'	
LITHOLOGY	FILL	BE/DU	
Barium	34.100	10.900 f	

LF7SB08			
DEPTH	0.5'	2.5'	
LITHOLOGY	BE/DU	FILL	
Barium	125.000	35.000	

LF7GW09			
DEPTH	1.1'	2.6'	4.4'
LITHOLOGY	BE/DU	BE/DU	BE/DU
Barium	14.100 f	9.770 f	673.000

LF7GW08			
DEPTH	0.5'	3.5'	
LITHOLOGY	BE/DU	BE/DU	
Barium	101.000	18.500 f	

LF7SB04			
DEPTH	1.0'	3.0'	
LITHOLOGY	FILL	BE/DU	
Barium	31.100	15.200 f	

CFLSSB04			
DEPTH	0.5'		
LITHOLOGY	COLMA		
Barium	91.9		

LF7SB03			
DEPTH	0.5'	2.5'	
LITHOLOGY	FILL	BE/DU	
Barium	85.000	10.300 f	

CFLSSB03			
DEPTH	0.5'		
LITHOLOGY	BE/DU		
Barium	42.3		

2.5'	
BE/DU	
22.300 f	



**DAMES & MOORE**

**CRISSY FIELD STUDY AREA  
FILL SITE 7 AND SEWER LIFT STATIONS  
CONCENTRATIONS OF BARIUM IN SOIL**

PFS26506

Date: January 1997

Figure 5.5-18



REFCF06	
DEPTH	0.0'
LITHOLOGY	MISC
Beryllium	0.231

REFCF03	
DEPTH	0.0'
LITHOLOGY	MISC
Beryllium	<0.1

REFCF05	
DEPTH	0.0'
LITHOLOGY	MISC
Beryllium	<0.1

OF10SD05	
DEPTH	0.0'
LITHOLOGY	MISC
Beryllium	0.16

OF10SD04	
DEPTH	0.0'
LITHOLOGY	MISC
Beryllium	0.172

OF10SD03	
DEPTH	0.0'
LITHOLOGY	MISC
Beryllium	<0.1

OF10SD02	
DEPTH	0.0'
LITHOLOGY	MISC
Beryllium	0.169

OF10SD01	
DEPTH	0.0'
LITHOLOGY	MISC
Beryllium	0.166

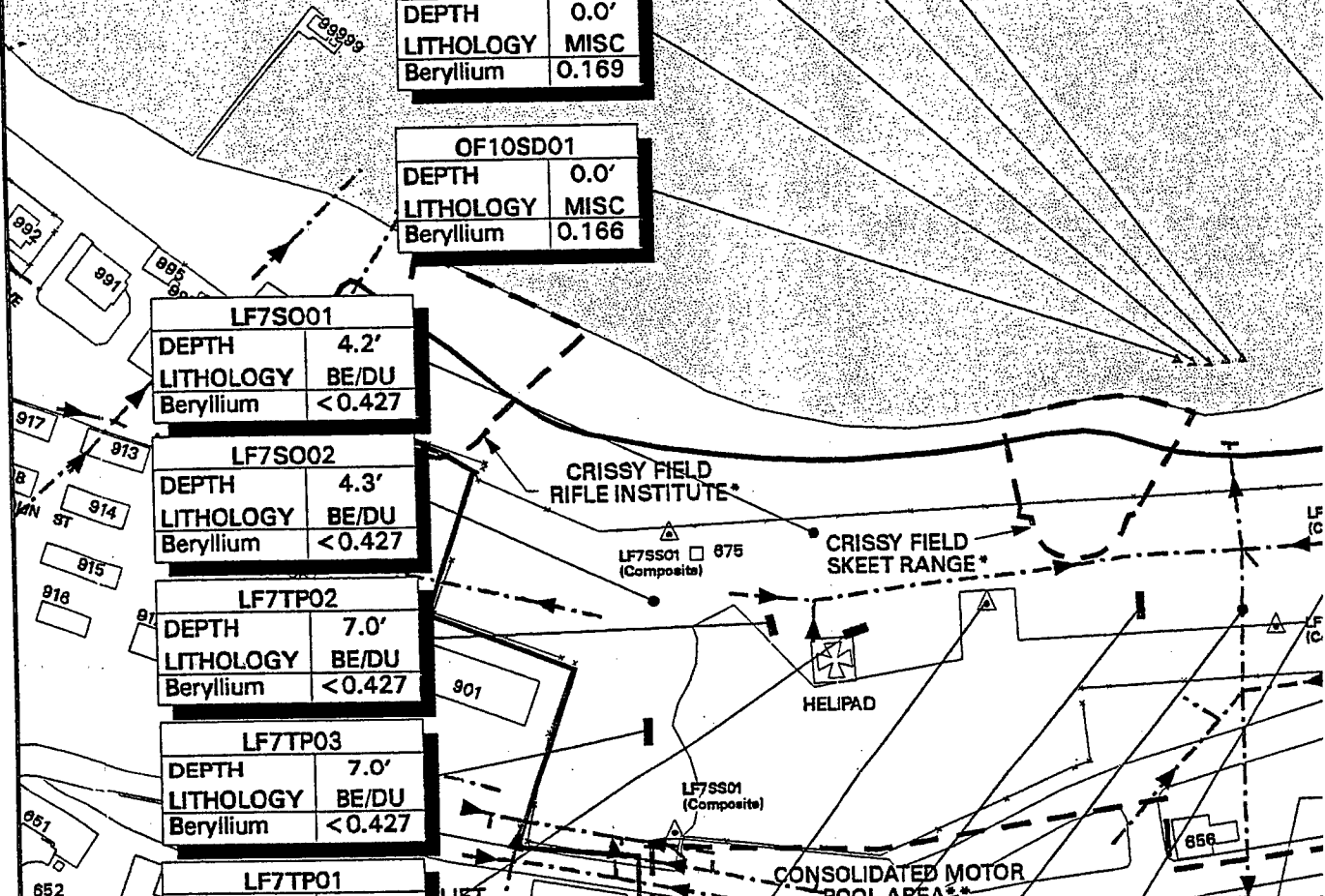
LF7SO01	
DEPTH	4.2'
LITHOLOGY	BE/DU
Beryllium	<0.427

LF7SO02	
DEPTH	4.3'
LITHOLOGY	BE/DU
Beryllium	<0.427

LF7TP02	
DEPTH	7.0'
LITHOLOGY	BE/DU
Beryllium	<0.427

LF7TP03	
DEPTH	7.0'
LITHOLOGY	BE/DU
Beryllium	<0.427

LF7TP01	
---------	--





REFCF02	
DEPTH	0.0'
LITHOLOGY	MISC
Beryllium	<0.1

REFCF08	
DEPTH	0.0'
LITHOLOGY	MISC
Beryllium	0.211

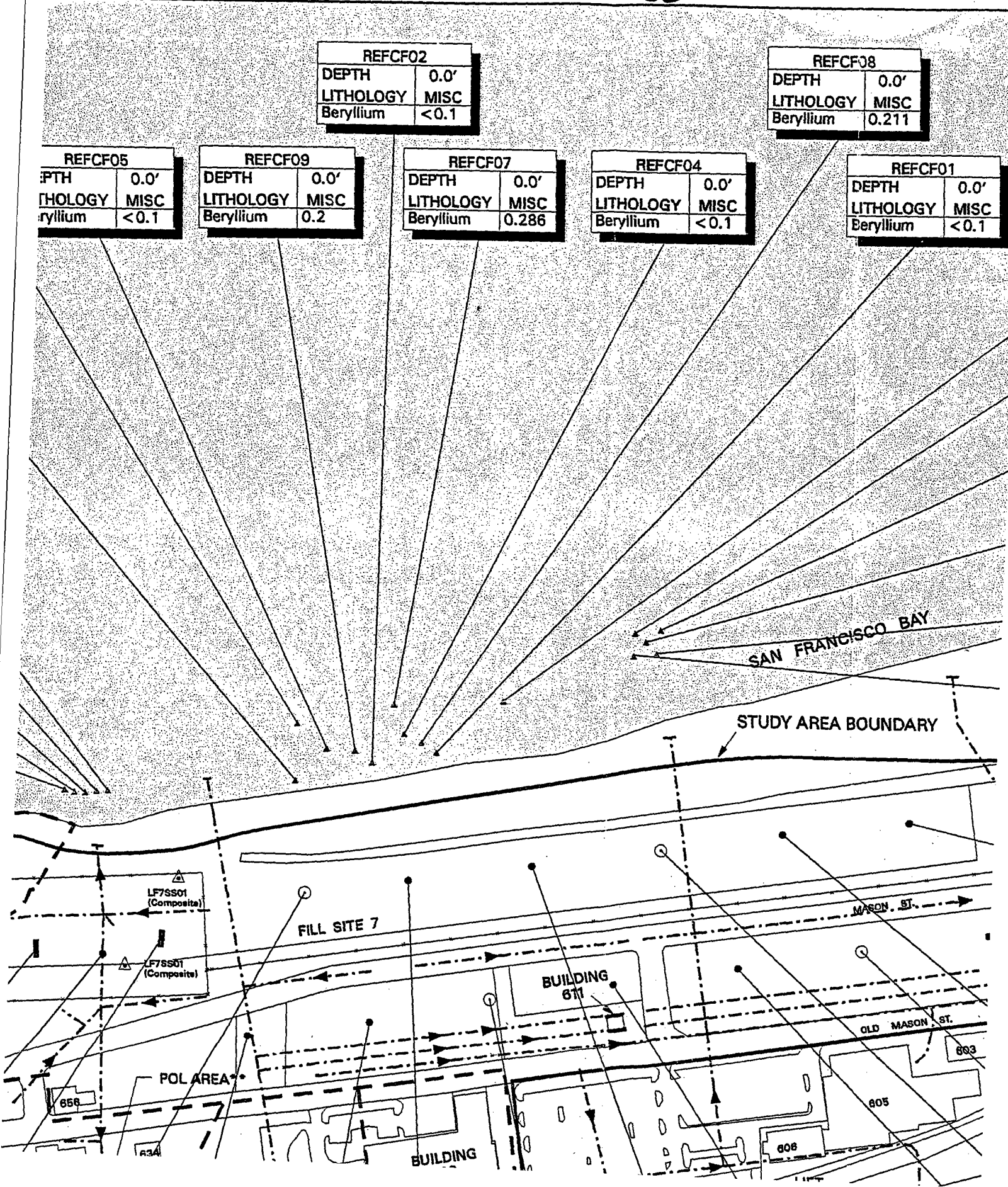
REFCF05	
DEPTH	0.0'
LITHOLOGY	MISC
Beryllium	<0.1

REFCF09	
DEPTH	0.0'
LITHOLOGY	MISC
Beryllium	0.2

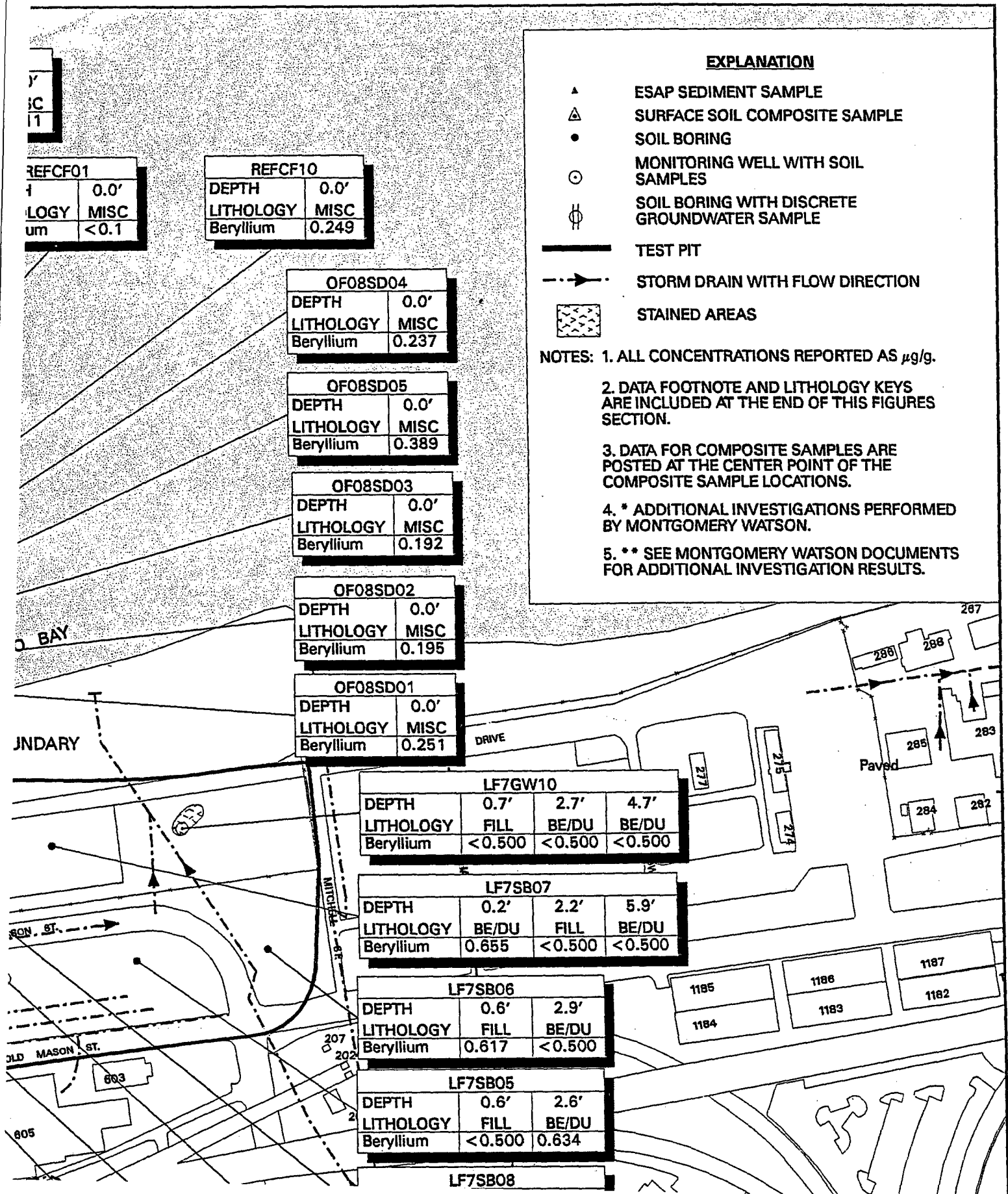
REFCF07	
DEPTH	0.0'
LITHOLOGY	MISC
Beryllium	0.286

REFCF04	
DEPTH	0.0'
LITHOLOGY	MISC
Beryllium	<0.1

REFCF01	
DEPTH	0.0'
LITHOLOGY	MISC
Beryllium	<0.1









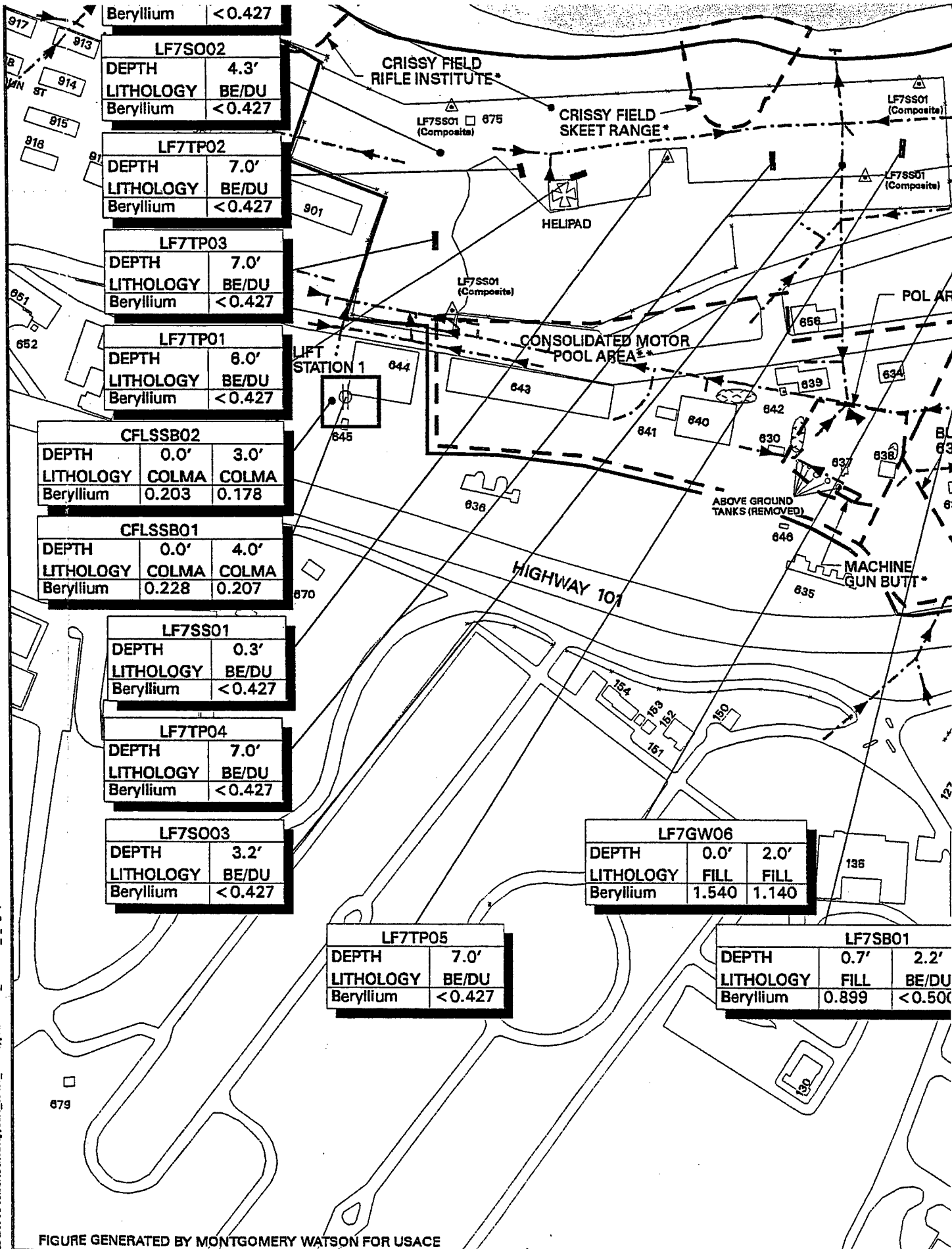
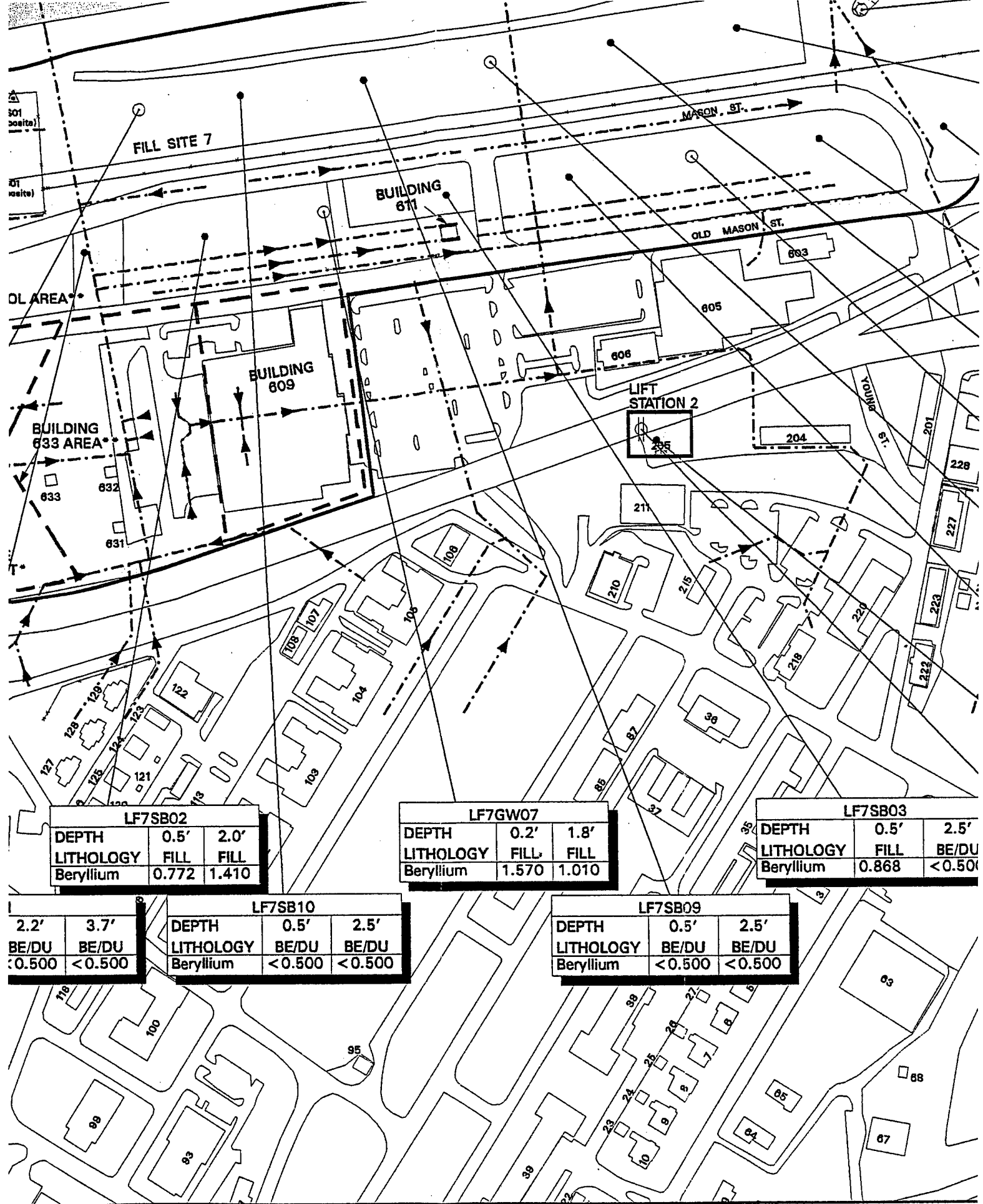


FIGURE GENERATED BY MONTGOMERY WATSON FOR USACE





LF7SB02

DEPTH	0.5'	2.0'
LITHOLOGY	FILL	FILL
Beryllium	0.772	1.410

LF7GW07

DEPTH	0.2'	1.8'
LITHOLOGY	FILL	FILL
Beryllium	1.570	1.010

LF7SB03

DEPTH	0.5'	2.5'
LITHOLOGY	FILL	BE/DU
Beryllium	0.868	<0.500

LF7SB10

2.2'	3.7'	DEPTH	0.5'	2.5'
BE/DU	BE/DU	LITHOLOGY	BE/DU	BE/DU
<0.500	<0.500	Beryllium	<0.500	<0.500

LF7SB09

DEPTH	0.5'	2.5'
LITHOLOGY	BE/DU	BE/DU
Beryllium	<0.500	<0.500



DEPTH	0.7'	2.7'	4.7'
LITHOLOGY	FILL	BE/DU	BE/DU
Beryllium	<0.500	<0.500	<0.500

LF7SB07			
DEPTH	0.2'	2.2'	5.9'
LITHOLOGY	BE/DU	FILL	BE/DU
Beryllium	0.655	<0.500	<0.500

LF7SB06		
DEPTH	0.6'	2.9'
LITHOLOGY	FILL	BE/DU
Beryllium	0.617	<0.500

LF7SB05		
DEPTH	0.6'	2.6'
LITHOLOGY	FILL	BE/DU
Beryllium	<0.500	0.634

LF7SB08		
DEPTH	0.5'	2.5'
LITHOLOGY	BE/DU	FILL
Beryllium	0.688	<0.500

LF7GW09			
DEPTH	1.1'	2.6'	4.4'
LITHOLOGY	BE/DU	BE/DU	BE/DU
Beryllium	<0.500	<0.500	0.963

LF7GW08		
DEPTH	0.5'	3.5'
LITHOLOGY	BE/DU	BE/DU
Beryllium	0.654	<0.500

LF7SB04		
DEPTH	1.0'	3.0'
LITHOLOGY	FILL	BE/DU
Beryllium	0.770	<0.500

CFLSSB04	
DEPTH	0.5'
LITHOLOGY	COLMA
Beryllium	0.413

LF7SB03		
DEPTH	0.5'	2.5'
LITHOLOGY	FILL	BE/DU
Beryllium	0.868	<0.500

CFLSSB03	
DEPTH	0.5'
LITHOLOGY	BE/DU
Beryllium	0.642



**DAMES & MOORE**

**CRISSY FIELD STUDY AREA  
FILL SITE 7 AND SEWER LIFT STATIONS  
CONCENTRATIONS OF BERYLLIUM IN SOIL**

PFS26507

Date: January 1997

Figure 5.5-19



REFCF06			
DEPTH	0.0'		
LITHOLOGY	MISC		
Cadmium	<0.8		

REFCF03			
DEPTH	0.0'		
LITHOLOGY	MISC		
Cadmium	<0.8		

REFCF05			
DEPTH	0.0'		
LITHOLOGY	MISC		
Cadmium	<0.8		

OF10SD05			
DEPTH	0.0'		
LITHOLOGY	MISC		
Cadmium	<0.8		

OF10SD04			
DEPTH	0.0'		
LITHOLOGY	MISC		
Cadmium	<0.8		

OF10SD03			
DEPTH	0.0'		
LITHOLOGY	MISC		
Cadmium	<0.8		

OF10SD02			
DEPTH	0.0'		
LITHOLOGY	MISC		
Cadmium	<0.8		

OF10SD01			
DEPTH	0.0'		
LITHOLOGY	MISC		
Cadmium	<0.8		

LF7SO01			
DEPTH	4.2'		
LITHOLOGY	BE/DU		
Cadmium	<1.200		

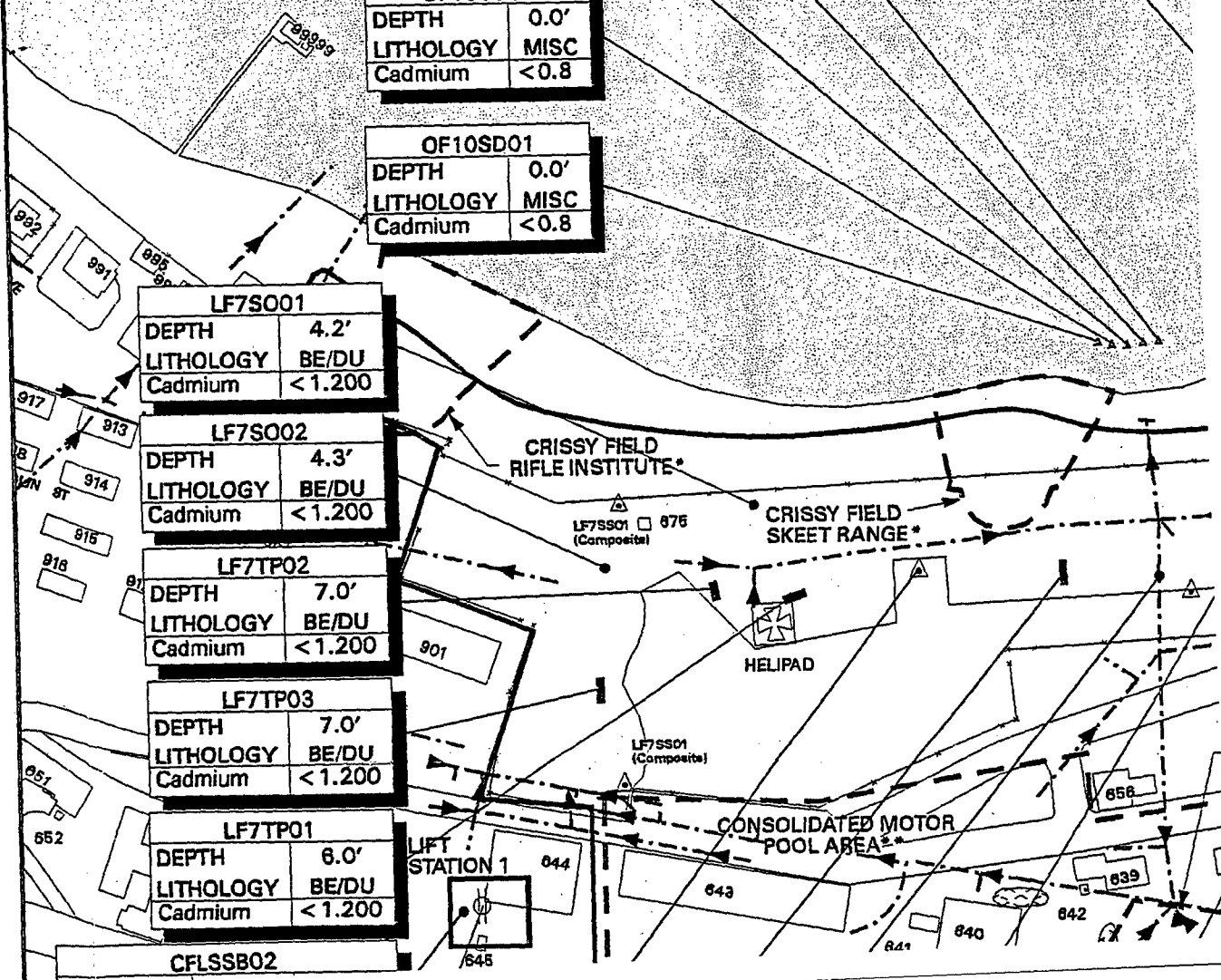
LF7SO02			
DEPTH	4.3'		
LITHOLOGY	BE/DU		
Cadmium	<1.200		

LF7TP02			
DEPTH	7.0'		
LITHOLOGY	BE/DU		
Cadmium	<1.200		

LF7TP03			
DEPTH	7.0'		
LITHOLOGY	BE/DU		
Cadmium	<1.200		

LF7TP01			
DEPTH	6.0'		
LITHOLOGY	BE/DU		
Cadmium	<1.200		

CFLSSB02





REFCF02	
DEPTH	0.0'
LITHOLOGY	MISC
Cadmium	<0.8

REFCF08	
DEPTH	0.0'
LITHOLOGY	MISC
Cadmium	<0.8

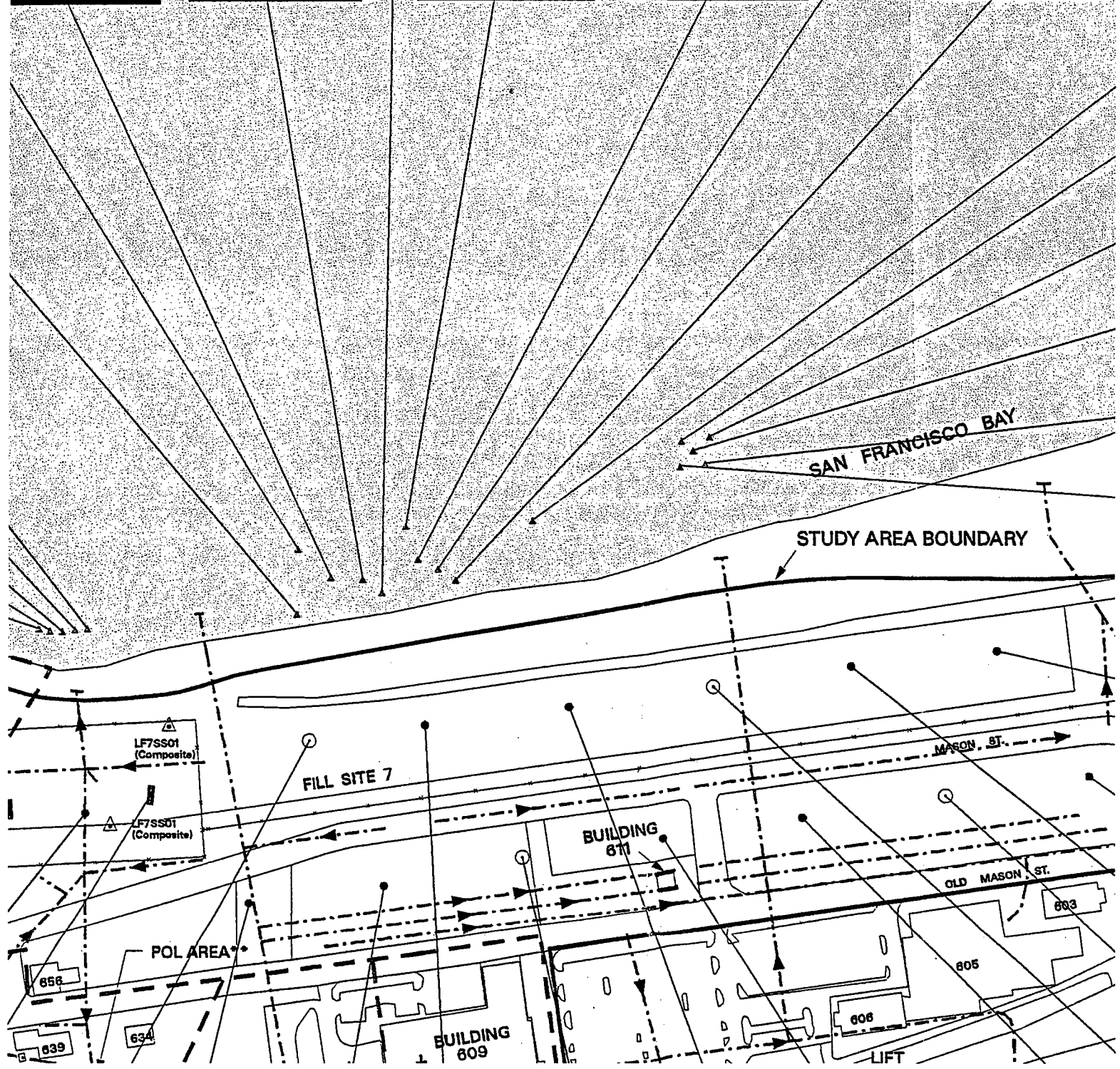
REFCF05	
DEPTH	0.0'
LITHOLOGY	MISC
Cadmium	<0.8

REFCF09	
DEPTH	0.0'
LITHOLOGY	MISC
Cadmium	<0.8

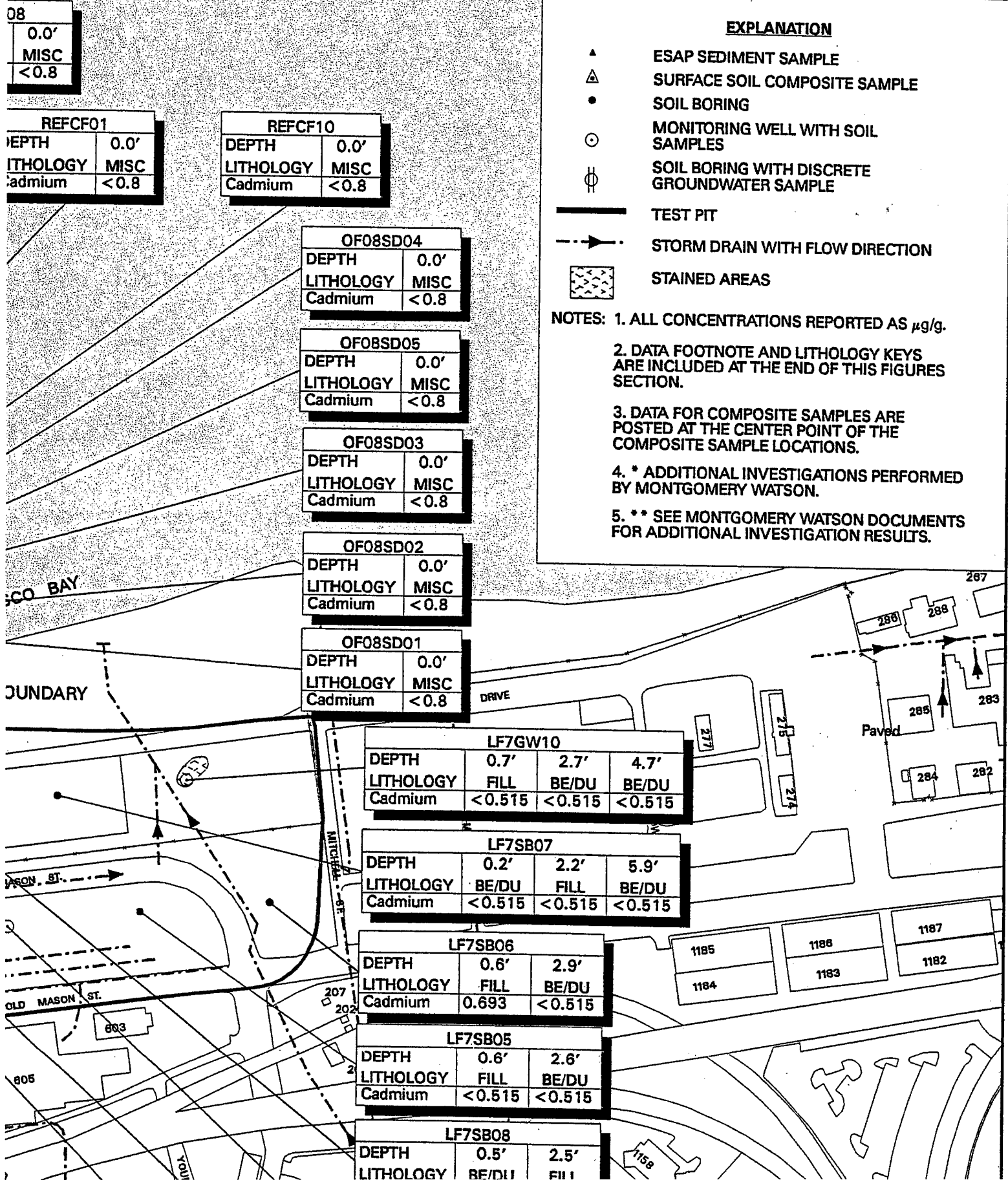
REFCF07	
DEPTH	0.0'
LITHOLOGY	MISC
Cadmium	<0.8

REFCF04	
DEPTH	0.0'
LITHOLOGY	MISC
Cadmium	<0.8

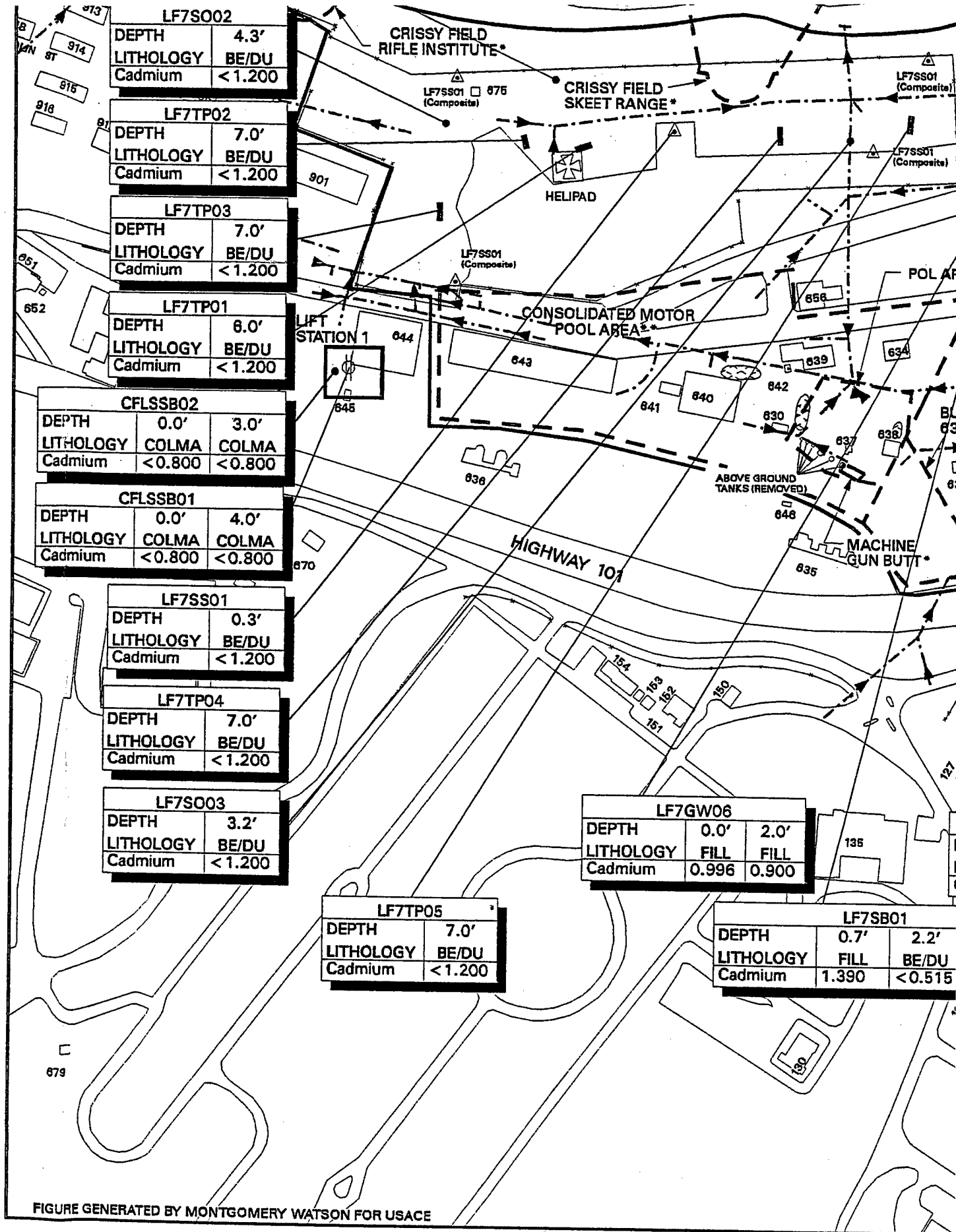
REFCF01	
DEPTH	0.0'
LITHOLOGY	MISC
Cadmium	<0.8



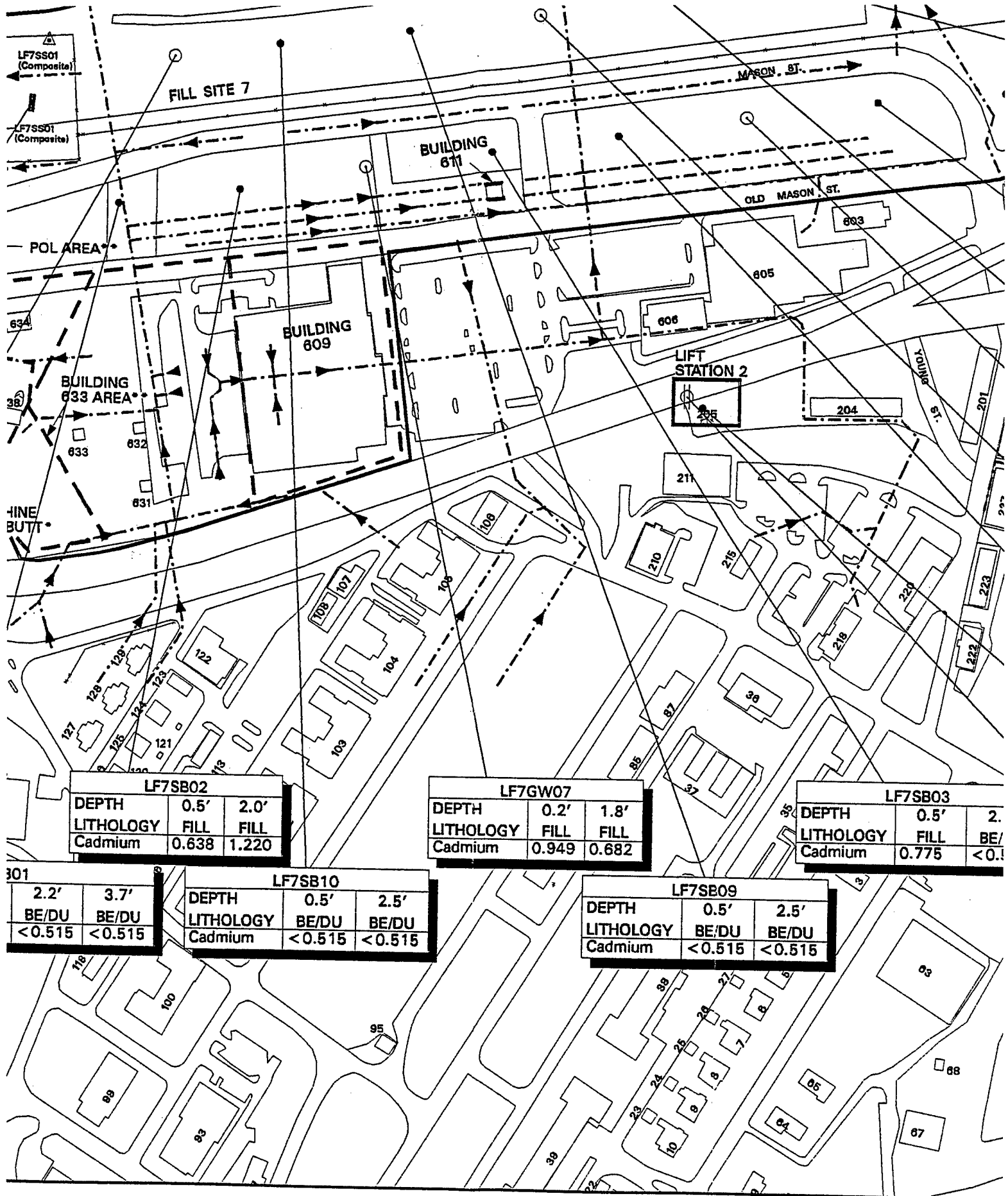












LF7SS01  
(Composite)

LF7SS01  
(Composite)

FILL SITE 7

BUILDING 611

MASON ST.

OLD MASON ST.

POL AREA\*

BUILDING 609

LIFT STATION 2

BUILDING 633 AREA\*

HINE BUTT\*

LF7SB02		
DEPTH	0.5'	2.0'
LITHOLOGY	FILL	FILL
Cadmium	0.638	1.220

LF7GW07		
DEPTH	0.2'	1.8'
LITHOLOGY	FILL	FILL
Cadmium	0.949	0.682

LF7SB03		
DEPTH	0.5'	2.0'
LITHOLOGY	FILL	BE/
Cadmium	0.775	<0.1

301	2.2'	3.7'
BE/DU	BE/DU	
<0.515	<0.515	

LF7SB10		
DEPTH	0.5'	2.5'
LITHOLOGY	BE/DU	BE/DU
Cadmium	<0.515	<0.515

LF7SB09		
DEPTH	0.5'	2.5'
LITHOLOGY	BE/DU	BE/DU
Cadmium	<0.515	<0.515



Cadmium	<0.515	<0.515	<0.515
---------	--------	--------	--------

LF7SB07			
DEPTH	0.2'	2.2'	5.9'
LITHOLOGY	BE/DU	FILL	BE/DU
Cadmium	<0.515	<0.515	<0.515

LF7SB06		
DEPTH	0.6'	2.9'
LITHOLOGY	FILL	BE/DU
Cadmium	0.693	<0.515

LF7SB05		
DEPTH	0.6'	2.6'
LITHOLOGY	FILL	BE/DU
Cadmium	<0.515	<0.515

LF7SB08		
DEPTH	0.5'	2.5'
LITHOLOGY	BE/DU	FILL
Cadmium	<0.515	<0.515

LF7GW09			
DEPTH	1.1'	2.6'	4.4'
LITHOLOGY	BE/DU	BE/DU	BE/DU
Cadmium	<0.515	<0.515	0.935

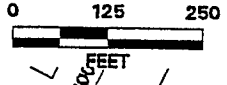
LF7GW08		
DEPTH	0.5'	3.5'
LITHOLOGY	BE/DU	BE/DU
Cadmium	<0.515	<0.515

LF7SB04		
DEPTH	1.0'	3.0'
LITHOLOGY	FILL	BE/DU
Cadmium	<0.515	<0.515

CFLSSB04		
DEPTH	0.5'	
LITHOLOGY	COLMA	
Cadmium	<0.800	

LF7SB03		
DEPTH	0.5'	2.5'
LITHOLOGY	FILL	BE/DU
Cadmium	0.775	<0.515

CFLSSB03	
DEPTH	0.5'
LITHOLOGY	BE/DU
Cadmium	<0.800



**DAMES & MOORE**

**CRISSY FIELD STUDY AREA  
FILL SITE 7 AND SEWER LIFT STATIONS  
CONCENTRATIONS OF CADMIUM IN SOIL**

PFS26509

Date: January 1997

Figure 5.5-20



REFCF06	
DEPTH	0.0'
LITHOLOGY	MISC
Chromium	29.8

REFCF03	
DEPTH	0.0'
LITHOLOGY	MISC
Chromium	34.8

REFCF05	
DEPTH	0.0
LITHOLOGY	MIS
Chromium	22.4

OF10SD05	
DEPTH	0.0'
LITHOLOGY	MISC
Chromium	26.5

OF10SD04	
DEPTH	0.0'
LITHOLOGY	MISC
Chromium	25.5

OF10SD03	
DEPTH	0.0'
LITHOLOGY	MISC
Chromium	20.1

OF10SD02	
DEPTH	0.0'
LITHOLOGY	MISC
Chromium	28.3

OF10SD01	
DEPTH	0.0'
LITHOLOGY	MISC
Chromium	39.9

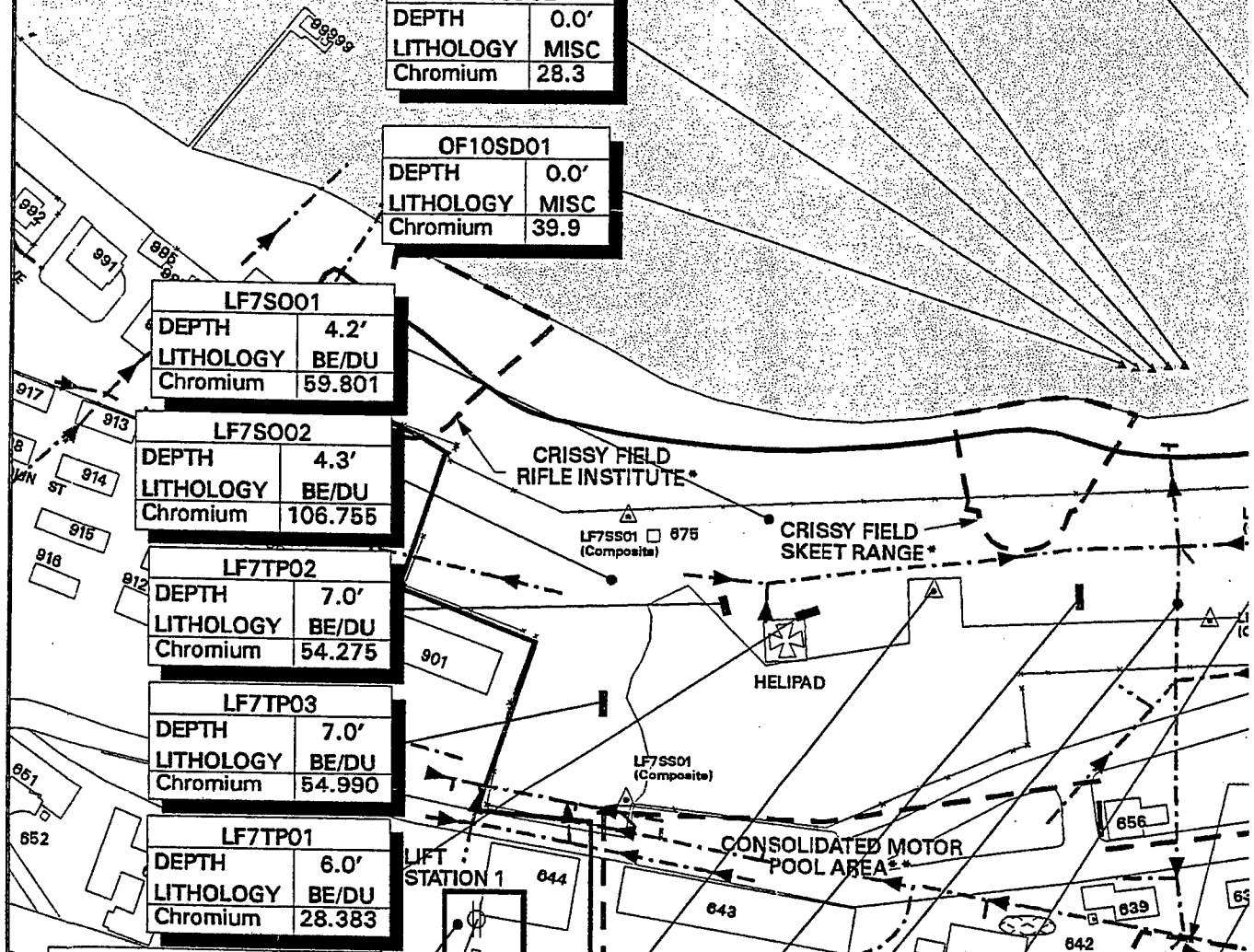
LF7SO01	
DEPTH	4.2'
LITHOLOGY	BE/DU
Chromium	59.801

LF7SO02	
DEPTH	4.3'
LITHOLOGY	BE/DU
Chromium	106.755

LF7TP02	
DEPTH	7.0'
LITHOLOGY	BE/DU
Chromium	54.275

LF7TP03	
DEPTH	7.0'
LITHOLOGY	BE/DU
Chromium	54.990

LF7TP01	
DEPTH	6.0'
LITHOLOGY	BE/DU
Chromium	28.383





REFCF02			
DEPTH	0.0'		
LITHOLOGY	MISC		
Chromium	26.5		

REFCF08			
DEPTH	0.0'		
LITHOLOGY	MISC		
Chromium	41.8		

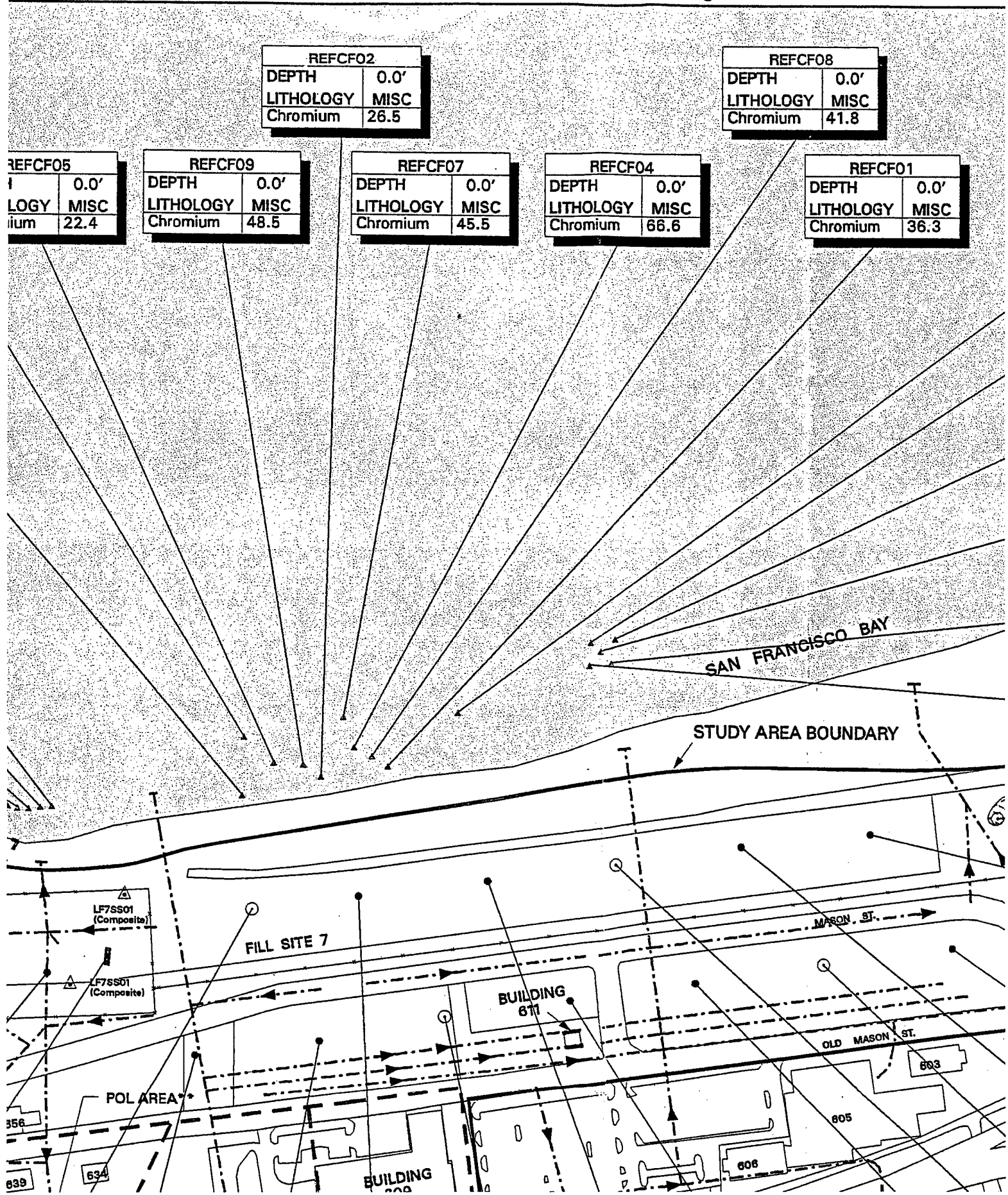
REFCF05			
DEPTH	0.0'		
LITHOLOGY	MISC		
Chromium	22.4		

REFCF09			
DEPTH	0.0'		
LITHOLOGY	MISC		
Chromium	48.5		

REFCF07			
DEPTH	0.0'		
LITHOLOGY	MISC		
Chromium	45.5		

REFCF04			
DEPTH	0.0'		
LITHOLOGY	MISC		
Chromium	66.6		

REFCF01			
DEPTH	0.0'		
LITHOLOGY	MISC		
Chromium	36.3		





**EXPLANATION**

- ▲ ESAP SEDIMENT SAMPLE
- △ SURFACE SOIL COMPOSITE SAMPLE
- SOIL BORING
- ⊙ MONITORING WELL WITH SOIL SAMPLES
- ⊕ SOIL BORING WITH DISCRETE GROUNDWATER SAMPLE
- TEST PIT
- > STORM DRAIN WITH FLOW DIRECTION
- ▨ STAINED AREAS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. DATA FOR COMPOSITE SAMPLES ARE POSTED AT THE CENTER POINT OF THE COMPOSITE SAMPLE LOCATIONS.

4. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.

5. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.

REFCF10	
DEPTH	0.0'
LITHOLOGY	MISC
Chromium	47.8

OF08SD04	
DEPTH	0.0'
LITHOLOGY	MISC
Chromium	43.8

OF08SD05	
DEPTH	0.0'
LITHOLOGY	MISC
Chromium	53

OF08SD03	
DEPTH	0.0'
LITHOLOGY	MISC
Chromium	37.7

OF08SD02	
DEPTH	0.0'
LITHOLOGY	MISC
Chromium	42.5

OF08SD01	
DEPTH	0.0'
LITHOLOGY	MISC
Chromium	45.5

LF7GW10			
DEPTH	0.7'	2.7'	4.7'
LITHOLOGY	FILL	BE/DU	BE/DU
Chromium	149.000	27.800	29.000

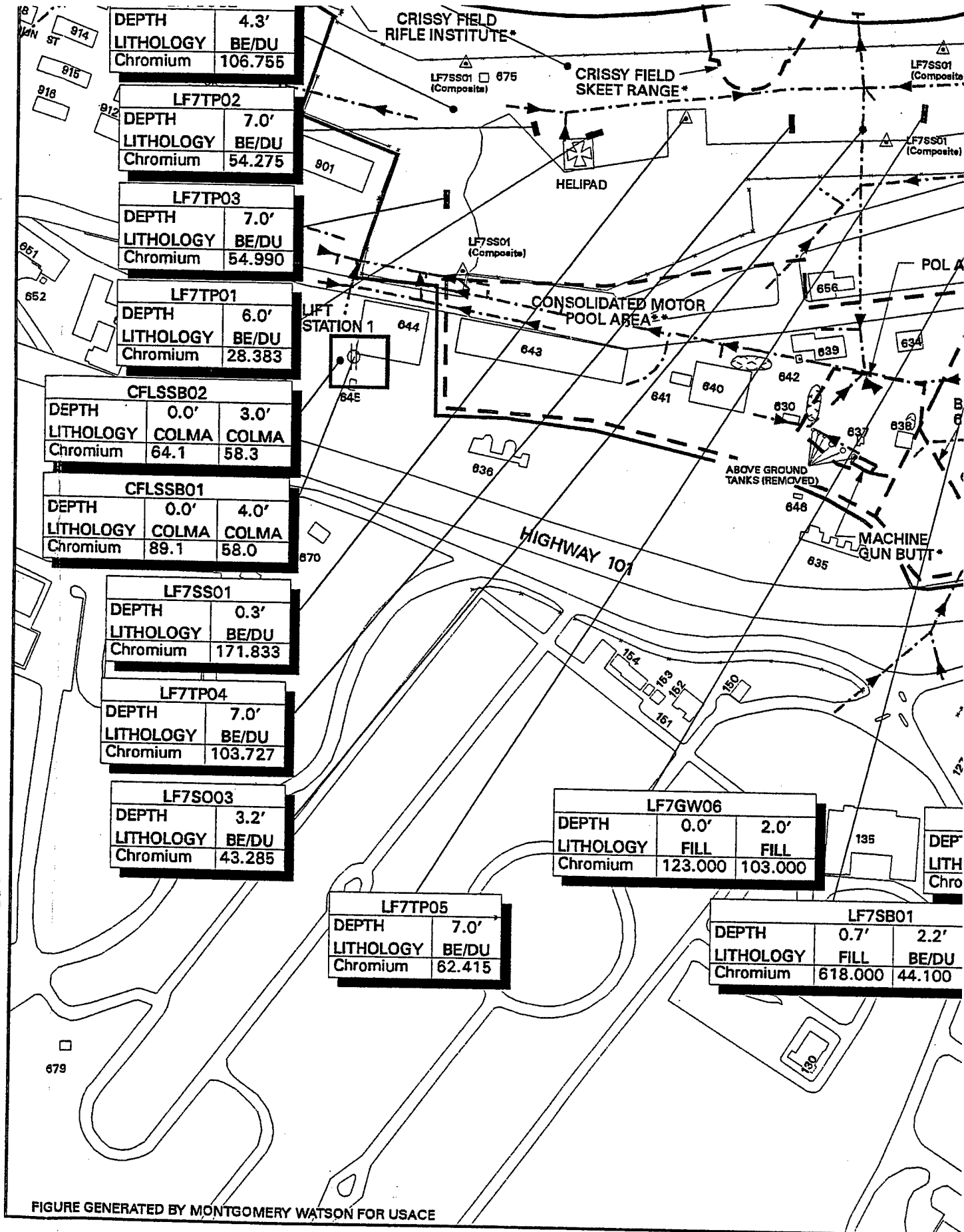
LF7SB07			
DEPTH	0.2'	2.2'	5.9'
LITHOLOGY	BE/DU	FILL	BE/DU
Chromium	57.900	72.400	81.300

LF7SB06		
DEPTH	0.6'	2.9'
LITHOLOGY	FILL	BE/DU
Chromium	37.900	41.400

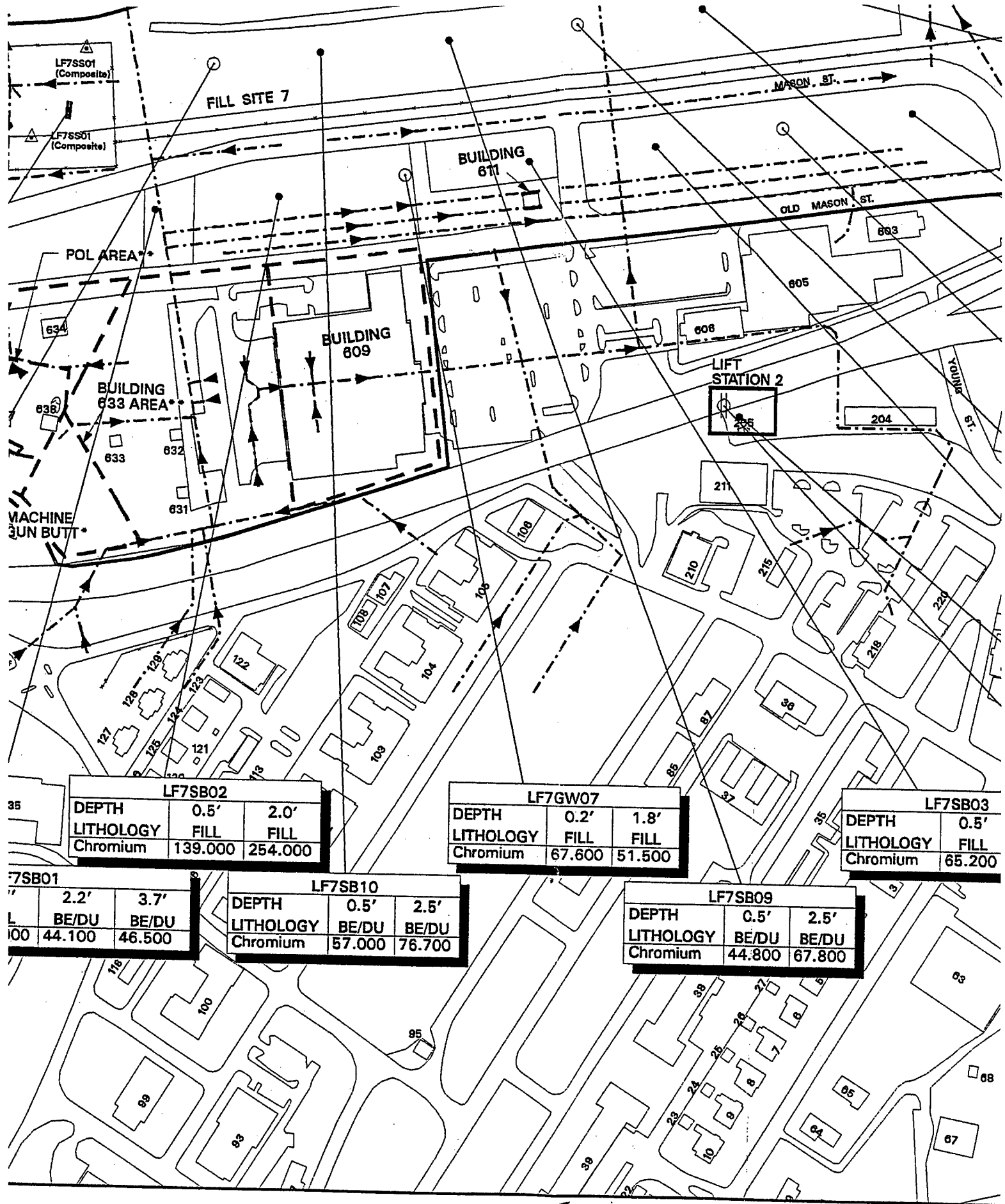
LF7SB05		
DEPTH	0.6'	2.6'
LITHOLOGY	FILL	BE/DU
Chromium	40.300	35.200

LF7SB08		
DEPTH	0.5'	2.5'









LF7SB02		
DEPTH	0.5'	2.0'
LITHOLOGY	FILL	FILL
Chromium	139.000	254.000

LF7GW07		
DEPTH	0.2'	1.8'
LITHOLOGY	FILL	FILL
Chromium	67.600	51.500

LF7SB03		
DEPTH	0.5'	
LITHOLOGY	FILL	
Chromium	65.200	

LF7SB01		
DEPTH	2.2'	3.7'
LITHOLOGY	BE/DU	BE/DU
Chromium	44.100	46.500

LF7SB10		
DEPTH	0.5'	2.5'
LITHOLOGY	BE/DU	BE/DU
Chromium	57.000	76.700

LF7SB09		
DEPTH	0.5'	2.5'
LITHOLOGY	BE/DU	BE/DU
Chromium	44.800	67.800



	BE/DU	BE/DU
Chromium	149.000	27.800
	29.000	

LF7SB07			
DEPTH	0.2'	2.2'	5.9'
LITHOLOGY	BE/DU	FILL	BE/DU
Chromium	57.900	72.400	81.300

LF7SB06		
DEPTH	0.6'	2.9'
LITHOLOGY	FILL	BE/DU
Chromium	37.900	41.400

LF7SB05		
DEPTH	0.6'	2.6'
LITHOLOGY	FILL	BE/DU
Chromium	40.300	35.200

LF7SB08		
DEPTH	0.5'	2.5'
LITHOLOGY	BE/DU	FILL
Chromium	72.700	40.700

LF7GW09			
DEPTH	1.1'	2.6'	4.4'
LITHOLOGY	BE/DU	BE/DU	BE/DU
Chromium	46.600	109.000	66.300

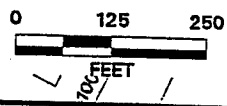
LF7GW08		
DEPTH	0.5'	3.5'
LITHOLOGY	BE/DU	BE/DU
Chromium	57.700	49.700

LF7SB04		
DEPTH	1.0'	3.0'
LITHOLOGY	FILL	BE/DU
Chromium	38.300	27.500

CFLSSB04	
DEPTH	0.5'
LITHOLOGY	COLMA
Chromium	49.2

LF7SB03		
DEPTH	0.5'	2.5'
LITHOLOGY	FILL	BE/DU
Chromium	65.200	30.200

CFLSSB03	
DEPTH	0.5'
LITHOLOGY	BE/DU
Chromium	26.9



**DAMES & MOORE**

**CRISSY FIELD STUDY AREA  
FILL SITE 7 AND SEWER LIFT STATIONS  
CONCENTRATIONS OF CHROMIUM IN SOIL**

PFS26512

Date: January 1997

Figure 5.5-21



REFCF06	
DEPTH	0.0'
LITHOLOGY	MISC
Cobalt	7.29

REFCF03	
DEPTH	0.0'
LITHOLOGY	MISC
Cobalt	6.21

DEPT	
LITHO	
Cobalt	

OF10SD05	
DEPTH	0.0'
LITHOLOGY	MISC
Cobalt	6.09

OF10SD04	
DEPTH	0.0'
LITHOLOGY	MISC
Cobalt	6.18

OF10SD03	
DEPTH	0.0'
LITHOLOGY	MISC
Cobalt	5.09

OF10SD02	
DEPTH	0.0'
LITHOLOGY	MISC
Cobalt	6.35

OF10SD01	
DEPTH	0.0'
LITHOLOGY	MISC
Cobalt	8.48

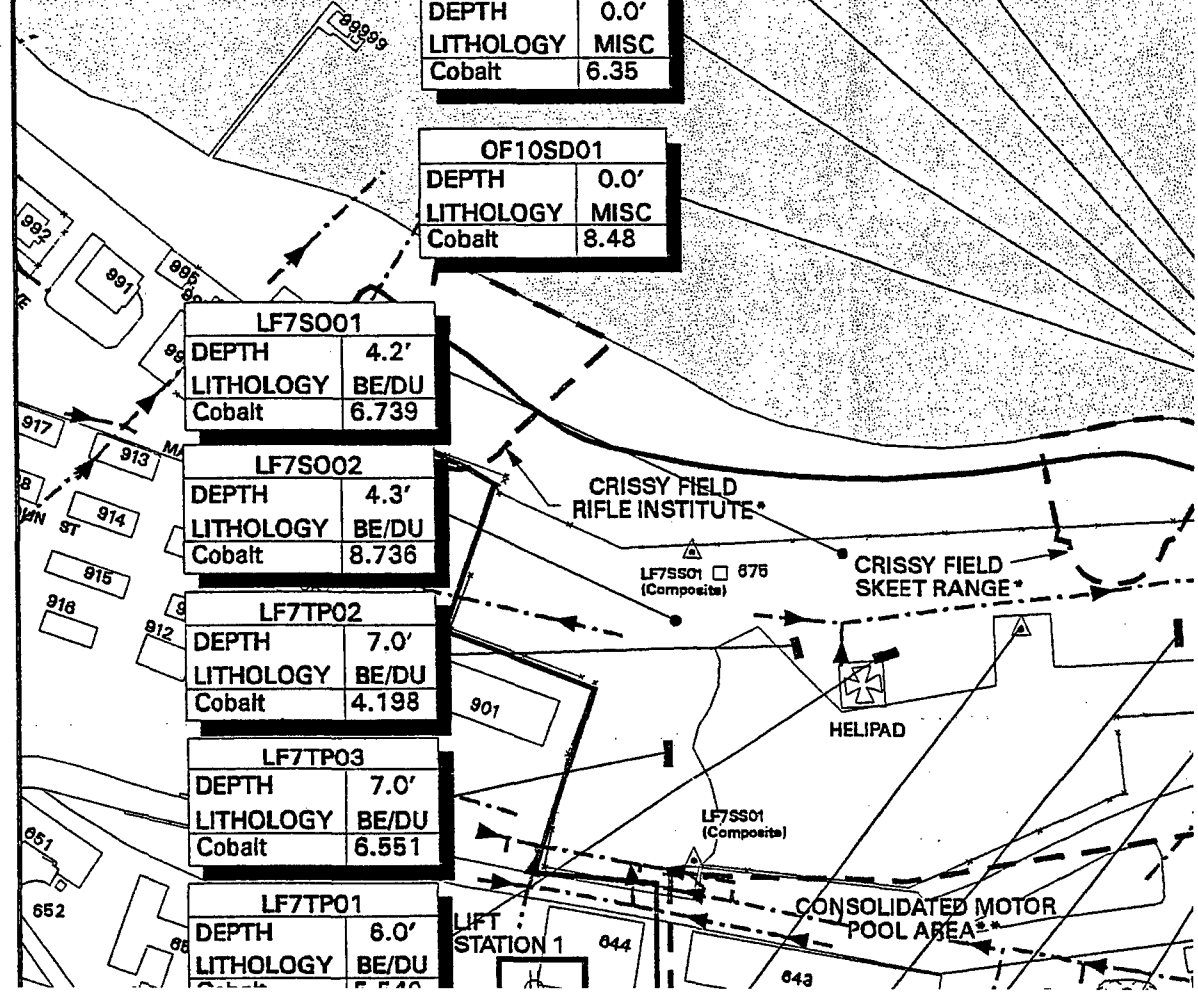
LF7S001	
DEPTH	4.2'
LITHOLOGY	BE/DU
Cobalt	6.739

LF7S002	
DEPTH	4.3'
LITHOLOGY	BE/DU
Cobalt	8.736

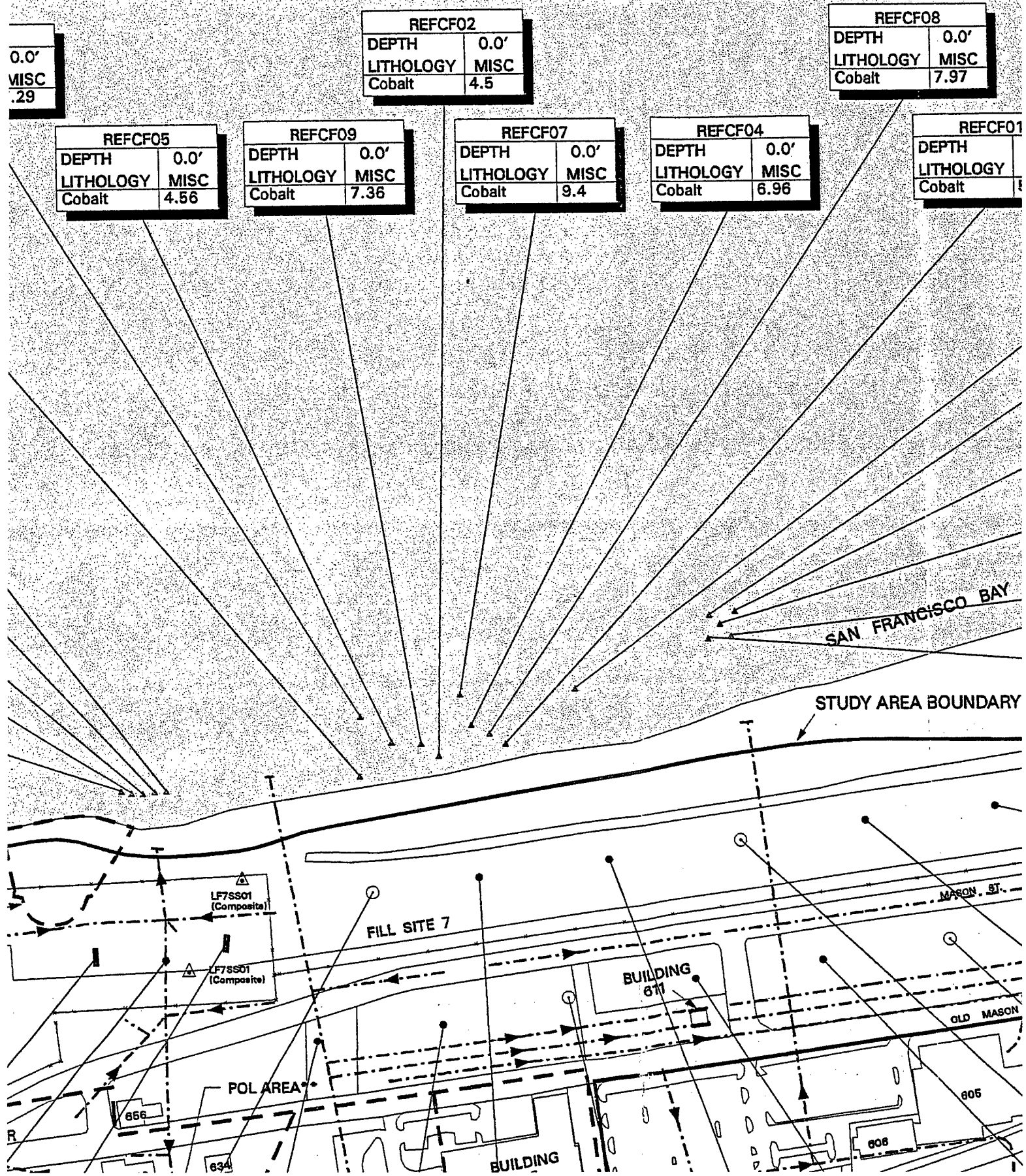
LF7TP02	
DEPTH	7.0'
LITHOLOGY	BE/DU
Cobalt	4.198

LF7TP03	
DEPTH	7.0'
LITHOLOGY	BE/DU
Cobalt	6.551

LF7TP01	
DEPTH	6.0'
LITHOLOGY	BE/DU









3

0.0'  
MISC  
.97

REFCF01	
DEPTH	0.0'
LITHOLOGY	MISC
Cobalt	5.96

REFCF10	
DEPTH	0.0'
LITHOLOGY	MISC
Cobalt	8.28

OF08SD04	
DEPTH	0.0'
LITHOLOGY	MISC
Cobalt	8.94

OF08SD05	
DEPTH	0.0'
LITHOLOGY	MISC
Cobalt	11.9

OF08SD03	
DEPTH	0.0'
LITHOLOGY	MISC
Cobalt	7.55

OF08SD02	
DEPTH	0.0'
LITHOLOGY	MISC
Cobalt	7.26

OF08SD01	
DEPTH	0.0'
LITHOLOGY	MISC
Cobalt	9

LF7GW10			
DEPTH	0.7'	2.7'	4.7'
LITHOLOGY	FILL	BE/DU	BE/DU
Cobalt	37.600	13.900 f	16.200 f

LF7SB07			
DEPTH	0.2'	2.2'	5.9'
LITHOLOGY	BE/DU	FILL	BE/DU
Cobalt	36.200	31.200	18.400

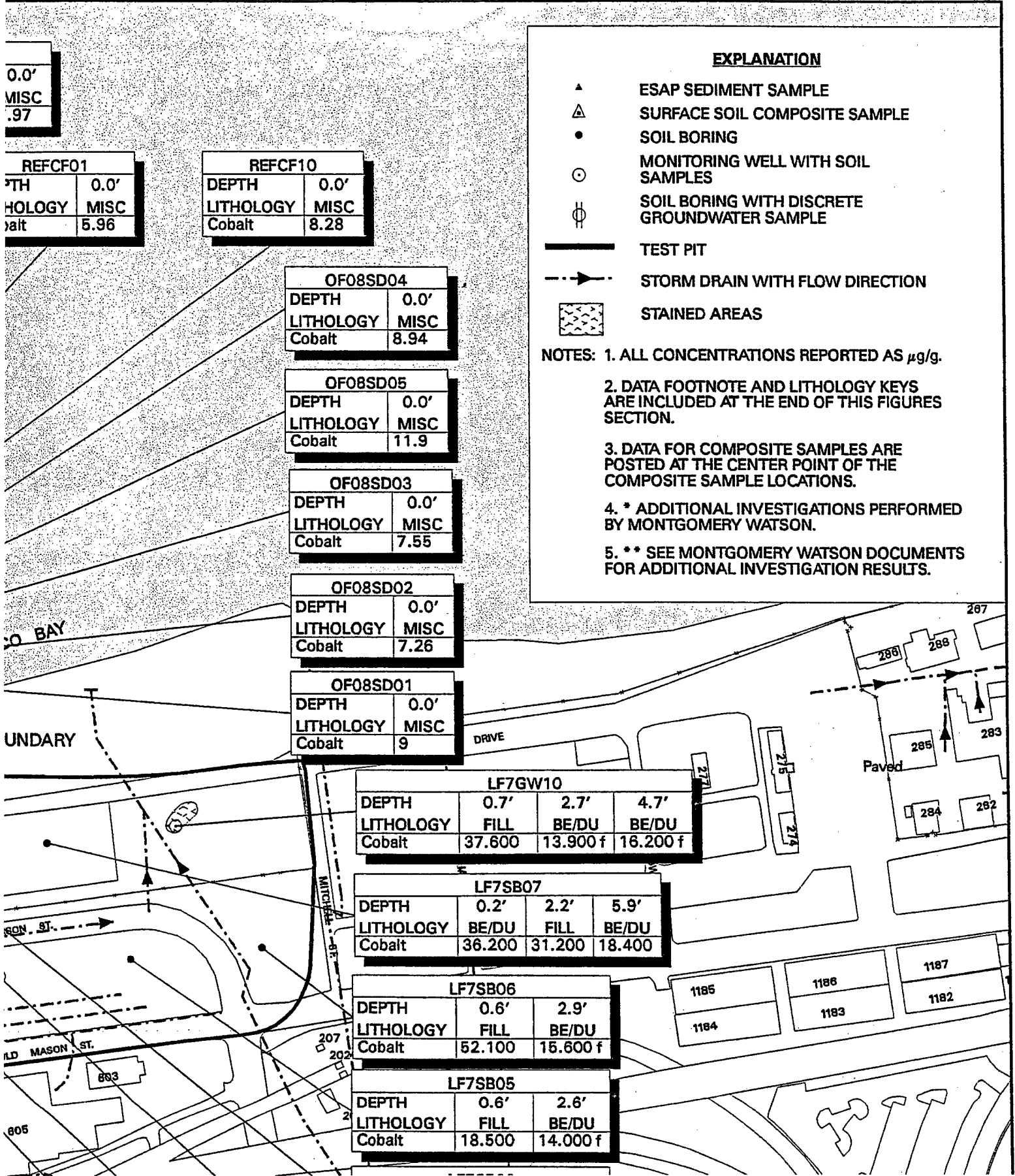
LF7SB06		
DEPTH	0.6'	2.9'
LITHOLOGY	FILL	BE/DU
Cobalt	52.100	15.600 f

LF7SB05		
DEPTH	0.6'	2.6'
LITHOLOGY	FILL	BE/DU
Cobalt	18.500	14.000 f

### EXPLANATION

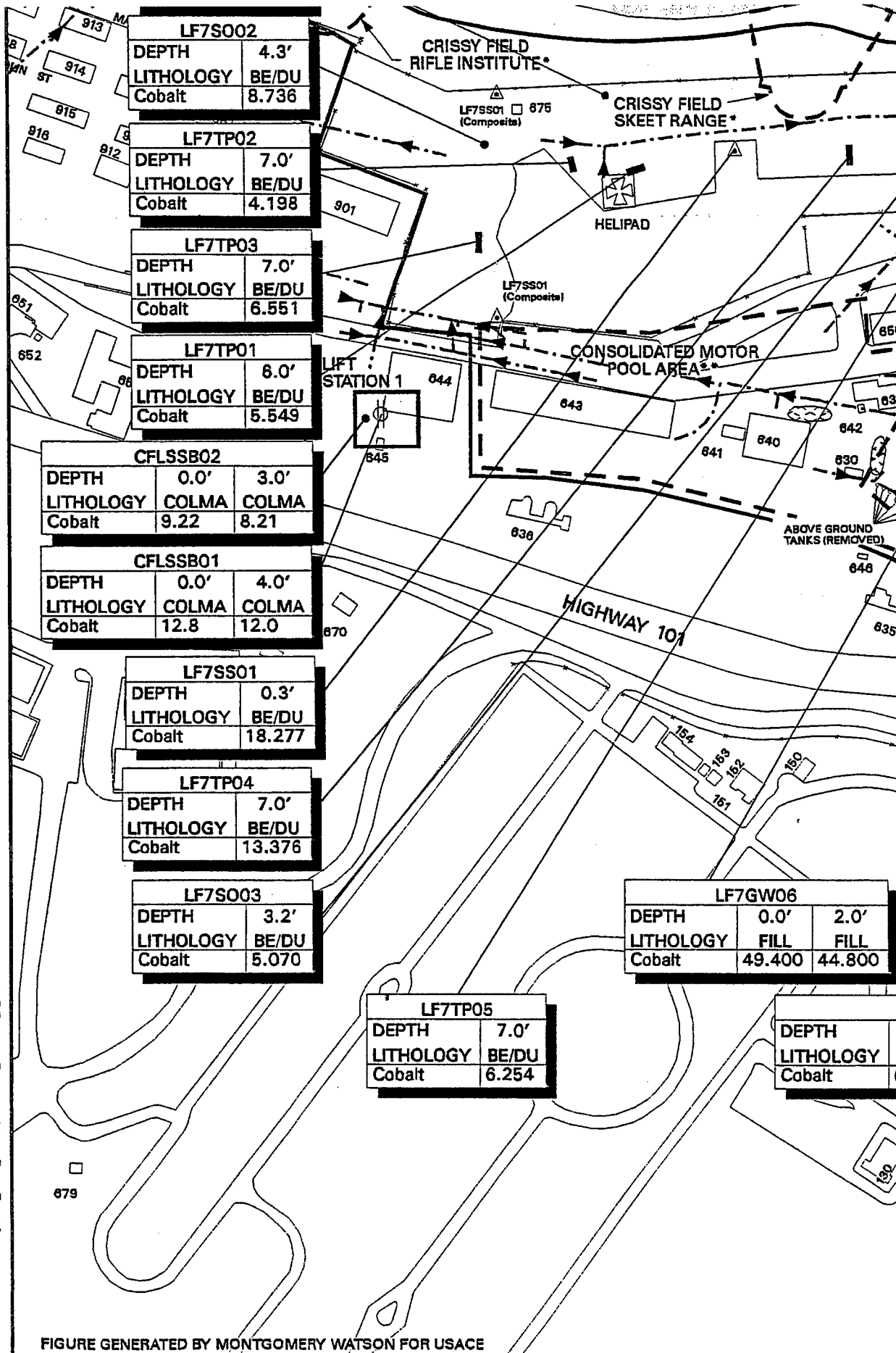
- ▲ ESAP SEDIMENT SAMPLE
- △ SURFACE SOIL COMPOSITE SAMPLE
- SOIL BORING
- MONITORING WELL WITH SOIL SAMPLES
- ⊕ SOIL BORING WITH DISCRETE GROUNDWATER SAMPLE
- TEST PIT
- > STORM DRAIN WITH FLOW DIRECTION
- ▨ STAINED AREAS

- NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .
2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.
3. DATA FOR COMPOSITE SAMPLES ARE POSTED AT THE CENTER POINT OF THE COMPOSITE SAMPLE LOCATIONS.
4. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.
5. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.





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LITHOLOGY	FILL	BE/DU	BE/DU
Cobalt	37.600	13.900 f	16.200 f

LF7SB07			
DEPTH	0.2'	2.2'	5.9'
LITHOLOGY	BE/DU	FILL	BE/DU
Cobalt	36.200	31.200	18.400

LF7SB06			
DEPTH	0.6'	2.9'	
LITHOLOGY	FILL	BE/DU	
Cobalt	52.100	15.600 f	

LF7SB05			
DEPTH	0.6'	2.6'	
LITHOLOGY	FILL	BE/DU	
Cobalt	18.500	14.000 f	

LF7SB08			
DEPTH	0.5'	2.5'	
LITHOLOGY	BE/DU	FILL	
Cobalt	33.500	14.900 f	

LF7GW09			
DEPTH	1.1'	2.6'	4.4'
LITHOLOGY	BE/DU	BE/DU	BE/DU
Cobalt	14.400 f	18.800	38.200

LF7GW08			
DEPTH	0.5'	3.5'	
LITHOLOGY	BE/DU	BE/DU	
Cobalt	31.100	27.100	

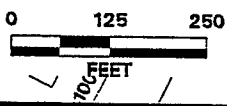
LF7SB04			
DEPTH	1.0'	3.0'	
LITHOLOGY	FILL	BE/DU	
Cobalt	17.000	14.100 f	

CFLSSB04			
DEPTH	0.5'		
LITHOLOGY	COLMA		
Cobalt	11.2		

LF7SB03			
DEPTH	0.5'	2.5'	
LITHOLOGY	FILL	BE/DU	
Cobalt	38.600	14.300 f	

CFLSSB03			
DEPTH	0.5'		
LITHOLOGY	BE/DU		
Cobalt	12.0		

5'  
DU  
00 f



**DAMES & MOORE**

**CRISSY FIELD STUDY AREA  
FILL SITE 7 AND SEWER LIFT STATIONS  
CONCENTRATIONS OF COBALT IN SOIL**

PFS26510

Date: January 1997

Figure 5.5-22



REFCF06	
DEPTH	0.0'
LITHOLOGY	MISC
Copper	9.92

REFCF03	
DEPTH	0.0'
LITHOLOGY	MISC
Copper	11.9

REFCF01	
DEPTH	
LITHOLOGY	
Copper	

OF10SD05	
DEPTH	0.0'
LITHOLOGY	MISC
Copper	4.21

OF10SD04	
DEPTH	0.0'
LITHOLOGY	MISC
Copper	4.27

OF10SD03	
DEPTH	0.0'
LITHOLOGY	MISC
Copper	3.59

OF10SD02	
DEPTH	0.0'
LITHOLOGY	MISC
Copper	4.24

OF10SD01	
DEPTH	0.0'
LITHOLOGY	MISC
Copper	5.39

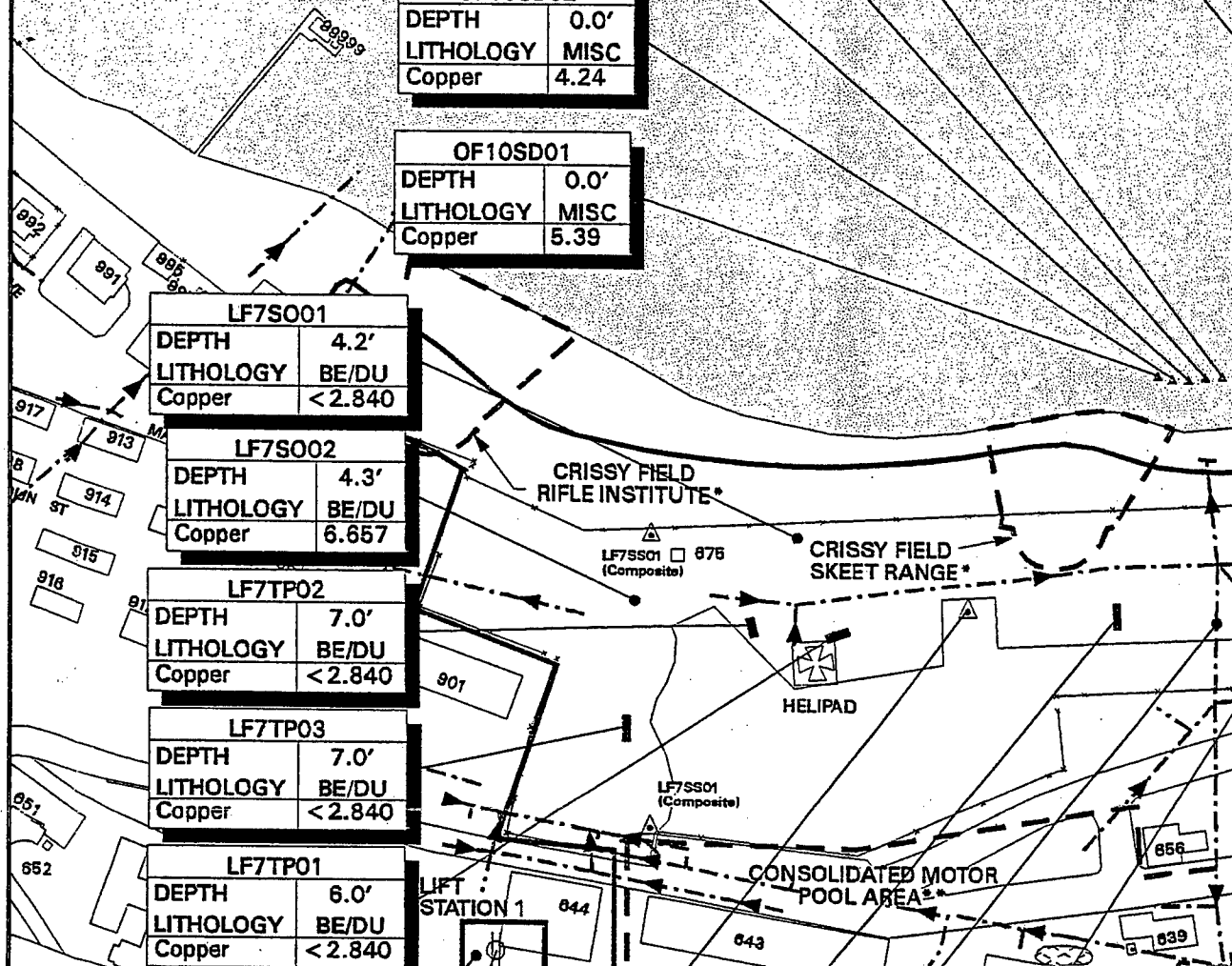
LF7S001	
DEPTH	4.2'
LITHOLOGY	BE/DU
Copper	<2.840

LF7S002	
DEPTH	4.3'
LITHOLOGY	BE/DU
Copper	6.657

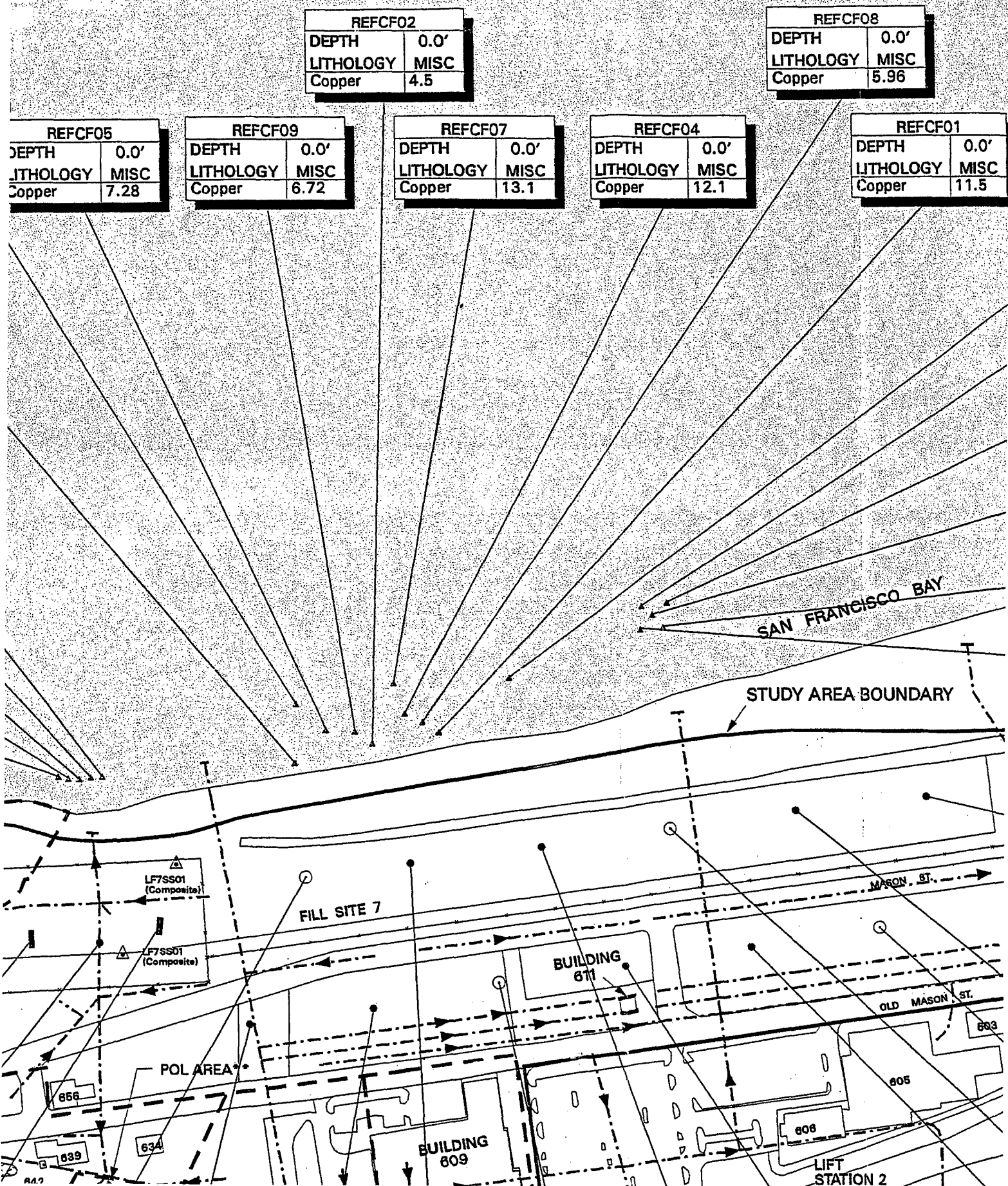
LF7TP02	
DEPTH	7.0'
LITHOLOGY	BE/DU
Copper	<2.840

LF7TP03	
DEPTH	7.0'
LITHOLOGY	BE/DU
Copper	<2.840

LF7TP01	
DEPTH	6.0'
LITHOLOGY	BE/DU
Copper	<2.840









**EXPLANATION**

- ▲ ESAP SEDIMENT SAMPLE
- △ SURFACE SOIL COMPOSITE SAMPLE
- SOIL BORING
- MONITORING WELL WITH SOIL SAMPLES
- ⊗ SOIL BORING WITH DISCRETE GROUNDWATER SAMPLE
- TEST PIT
- > STORM DRAIN WITH FLOW DIRECTION
- ▨ STAINED AREAS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. DATA FOR COMPOSITE SAMPLES ARE POSTED AT THE CENTER POINT OF THE COMPOSITE SAMPLE LOCATIONS.

4. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.

5. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.

REFCF01	0.0'
LITHOLOGY	MISC
Copper	11.5

REFCF10	0.0'
LITHOLOGY	MISC
Copper	8.9

OF08SD04	0.0'
LITHOLOGY	MISC
Copper	13.3

OF08SD05	0.0'
LITHOLOGY	MISC
Copper	24.4

OF08SD03	0.0'
LITHOLOGY	MISC
Copper	9.86

OF08SD02	0.0'
LITHOLOGY	MISC
Copper	10.7

OF08SD01	0.0'
LITHOLOGY	MISC
Copper	12.9

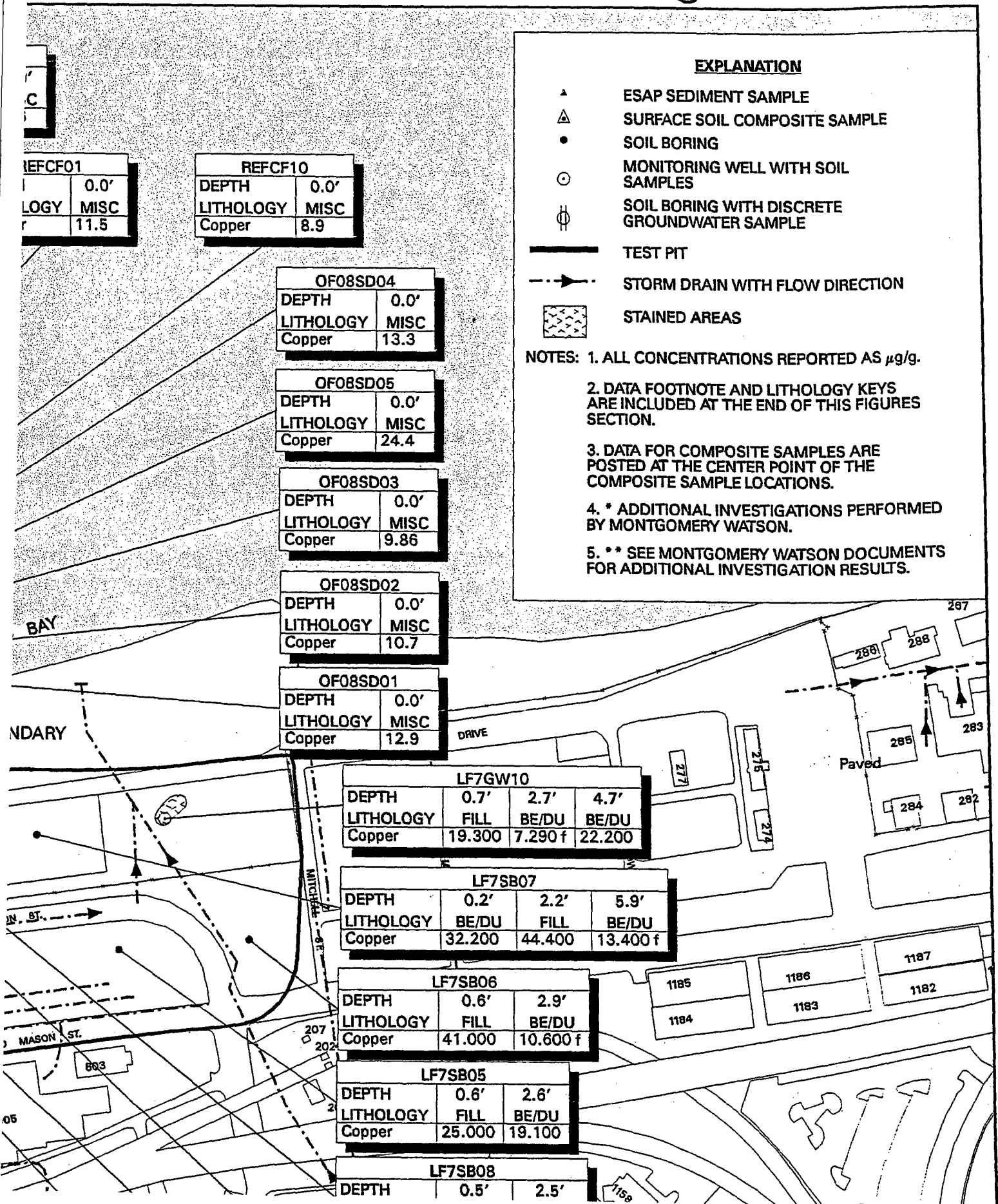
LF7GW10	0.7'	2.7'	4.7'
LITHOLOGY	FILL	BE/DU	BE/DU
Copper	19.300	7.290 f	22.200

LF7SB07	0.2'	2.2'	5.9'
LITHOLOGY	BE/DU	FILL	BE/DU
Copper	32.200	44.400	13.400 f

LF7SB06	0.6'	2.9'
LITHOLOGY	FILL	BE/DU
Copper	41.000	10.600 f

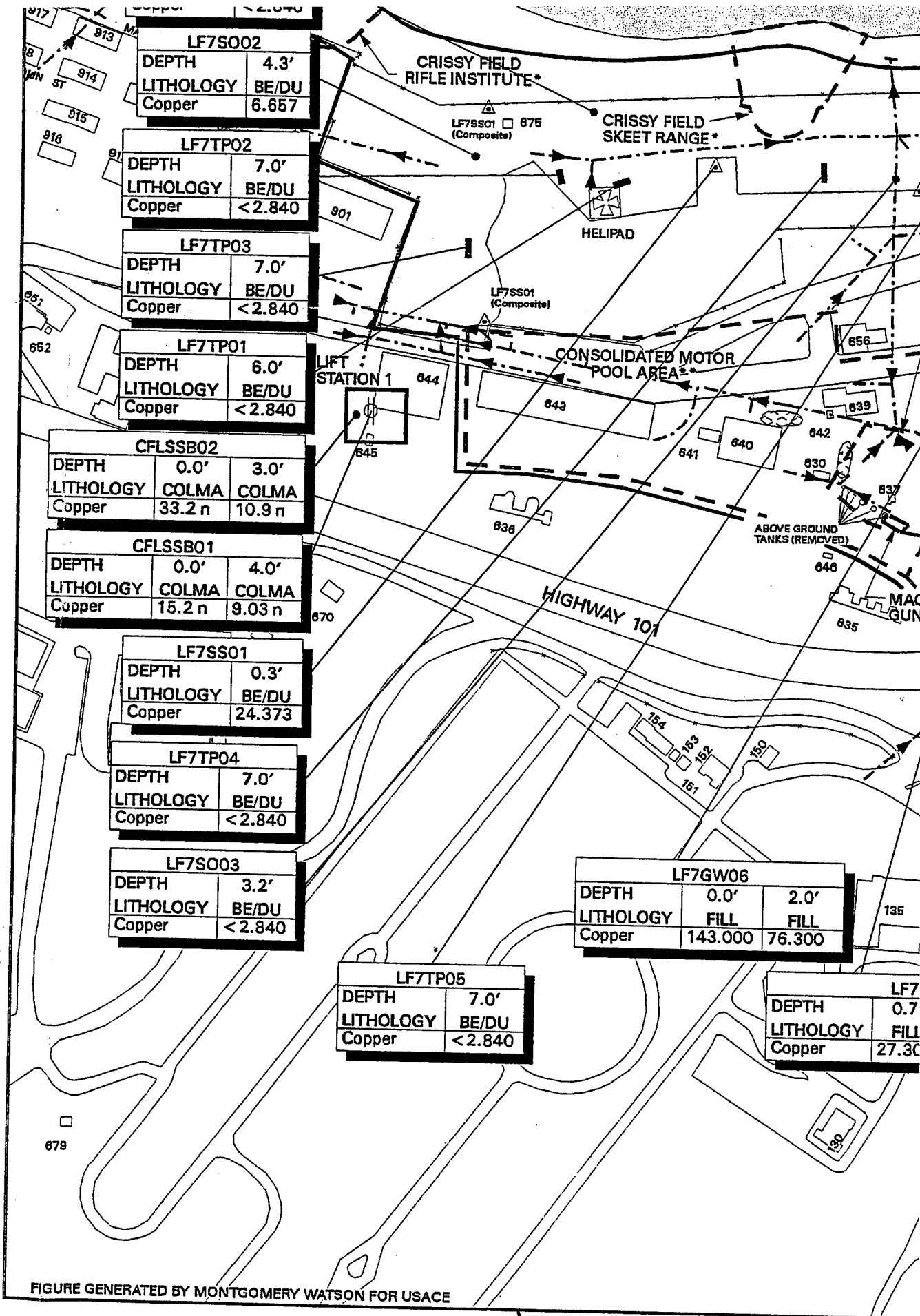
LF7SB05	0.6'	2.6'
LITHOLOGY	FILL	BE/DU
Copper	25.000	19.100

LF7SB08	0.5'	2.5'
---------	------	------

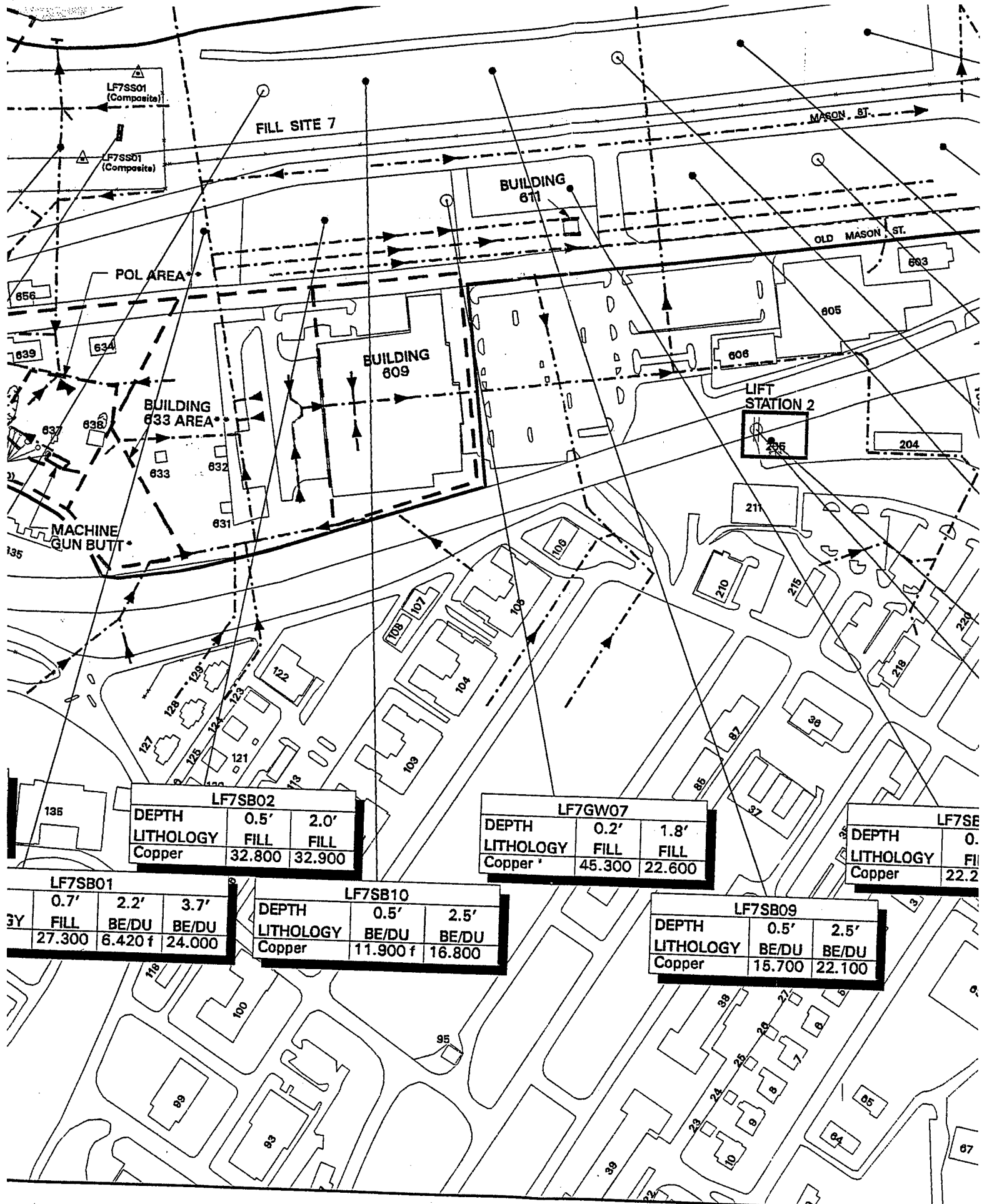




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LF7SB02			
DEPTH	0.5'	2.0'	
LITHOLOGY	FILL	FILL	
Copper	32.800	32.900	

LF7GW07			
DEPTH	0.2'	1.8'	
LITHOLOGY	FILL	FILL	
Copper	45.300	22.600	

LF7SE			
DEPTH	0.		
LITHOLOGY	FILL		
Copper	22.2		

LF7SB01			
3Y	0.7'	2.2'	3.7'
	FILL	BE/DU	BE/DU
	27.300	6.420 f	24.000

LF7SB10			
DEPTH	0.5'	2.5'	
LITHOLOGY	BE/DU	BE/DU	
Copper	11.900 f	16.800	

LF7SB09			
DEPTH	0.5'	2.5'	
LITHOLOGY	BE/DU	BE/DU	
Copper	15.700	22.100	



	0.1'	2.1'	4.7'
LITHOLOGY	FILL	BE/DU	BE/DU
Copper	19.300	7.290 f	22.200

LF7SB07			
DEPTH	0.2'	2.2'	5.9'
LITHOLOGY	BE/DU	FILL	BE/DU
Copper	32.200	44.400	13.400 f

LF7SB06		
DEPTH	0.6'	2.9'
LITHOLOGY	FILL	BE/DU
Copper	41.000	10.600 f

LF7SB05		
DEPTH	0.6'	2.6'
LITHOLOGY	FILL	BE/DU
Copper	25.000	19.100

LF7SB08		
DEPTH	0.5'	2.5'
LITHOLOGY	BE/DU	FILL
Copper	22.000	10.900 f

LF7GW09			
DEPTH	1.1'	2.6'	4.4'
LITHOLOGY	BE/DU	BE/DU	BE/DU
Copper	9.140 f	8.560 f	130.000

LF7GW08		
DEPTH	0.5'	3.5'
LITHOLOGY	BE/DU	BE/DU
Copper	38.100	19.700

LF7SB04		
DEPTH	1.0'	3.0'
LITHOLOGY	FILL	BE/DU
Copper	21.000	35.300

CFLSSB04	
DEPTH	0.5'
LITHOLOGY	COLMA
Copper	165

LF7SB03		
DEPTH	0.5'	2.5'
LITHOLOGY	FILL	BE/DU
Copper	22.200	12.500 f

CFLSSB03	
DEPTH	0.5'
LITHOLOGY	BE/DU
Copper	41.1



**DAMES & MOORE**

**CRISSY FIELD STUDY AREA  
FILL SITE 7 AND SEWER LIFT STATIONS  
CONCENTRATIONS OF COPPER IN SOIL**

PFS26513

Date: January 1997

Figure 5.E-23



REFCF06	
DEPTH	0.0'
LITHOLOGY	MISC
Iron	11100

REFCF03	
DEPTH	0.0'
LITHOLOGY	MISC
Iron	11700

REFCF05	
DEPTH	0.0'
LITHOLOGY	MISC
Iron	8920

OF10SD05	
DEPTH	0.0'
LITHOLOGY	MISC
Iron	9150

OF10SD04	
DEPTH	0.0'
LITHOLOGY	MISC
Iron	9330

OF10SD03	
DEPTH	0.0'
LITHOLOGY	MISC
Iron	7730

OF10SD02	
DEPTH	0.0'
LITHOLOGY	MISC
Iron	9450

OF10SD01	
DEPTH	0.0'
LITHOLOGY	MISC
Iron	10500

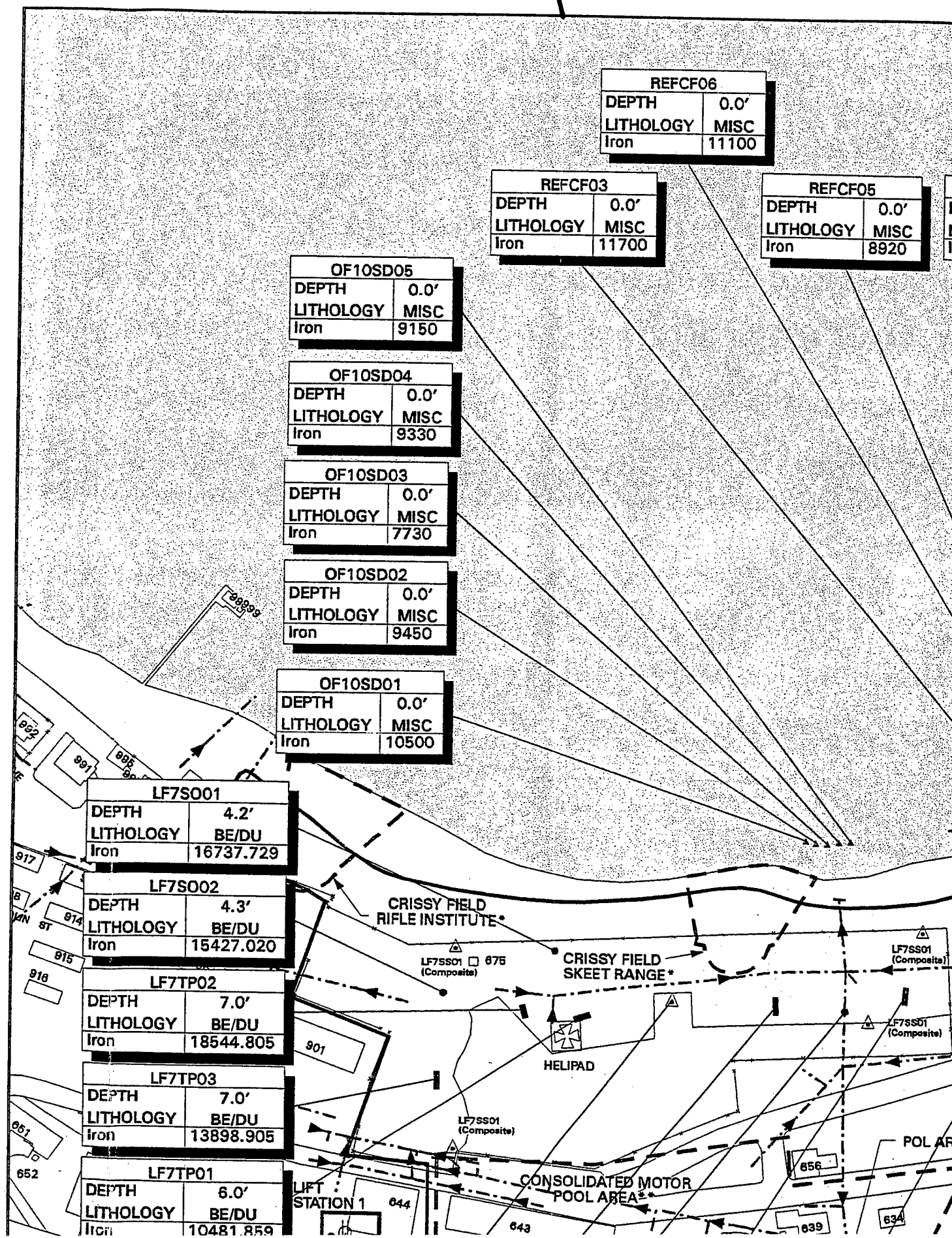
LF7S001	
DEPTH	4.2'
LITHOLOGY	BE/DU
Iron	16737.729

LF7S002	
DEPTH	4.3'
LITHOLOGY	BE/DU
Iron	15427.020

LF7TP02	
DEPTH	7.0'
LITHOLOGY	BE/DU
Iron	18544.805

LF7TP03	
DEPTH	7.0'
LITHOLOGY	BE/DU
Iron	13898.905

LF7TP01	
DEPTH	6.0'
LITHOLOGY	BE/DU
Iron	10481.859





2

REFCF02			
DEPTH	0.0'		
LITHOLOGY	MISC		
Iron	8460		

REFCF08			
DEPTH	0.0'		
LITHOLOGY	MISC		
Iron	11300		

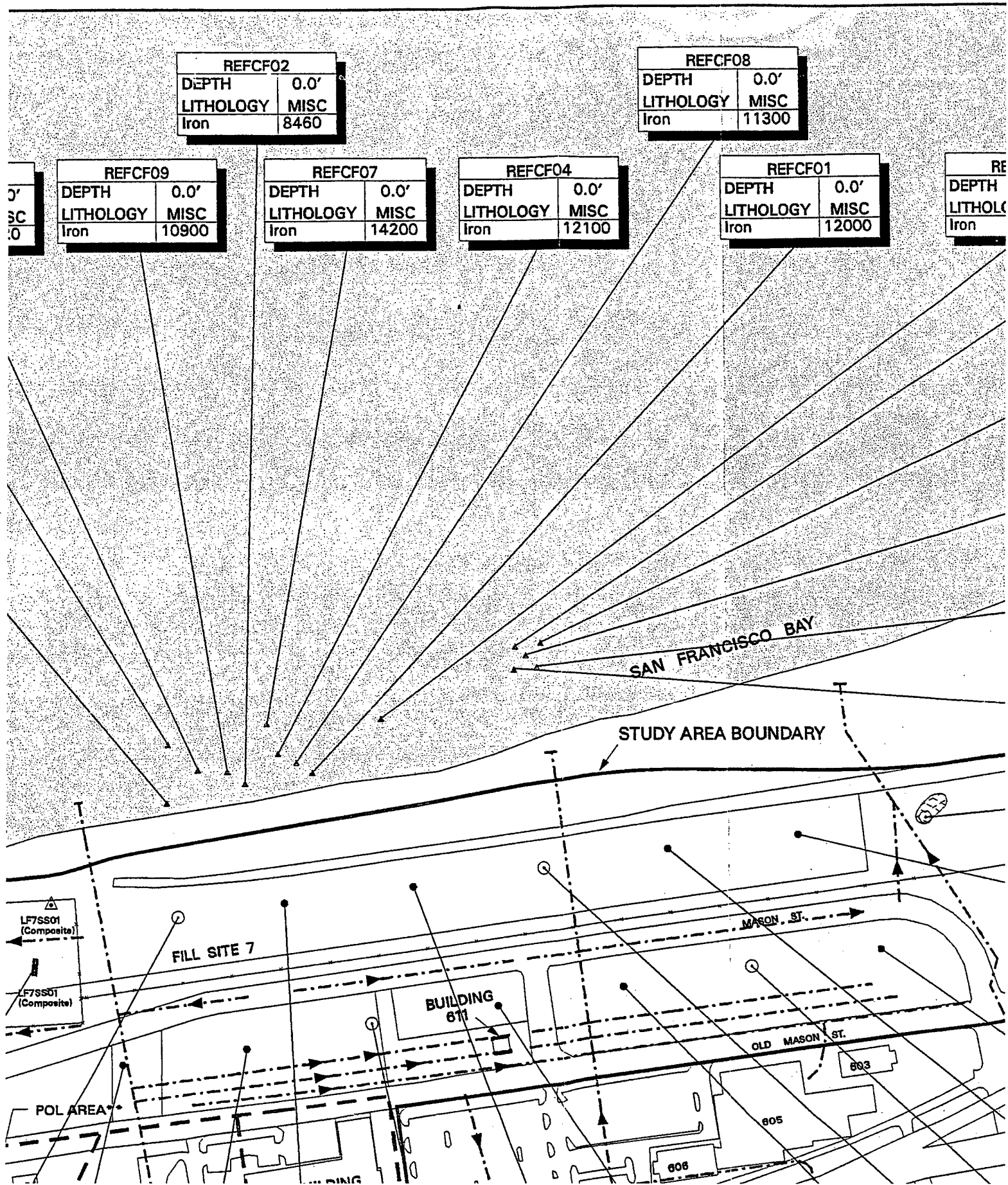
REFCF09			
DEPTH	0.0'		
LITHOLOGY	MISC		
Iron	10900		

REFCF07			
DEPTH	0.0'		
LITHOLOGY	MISC		
Iron	14200		

REFCF04			
DEPTH	0.0'		
LITHOLOGY	MISC		
Iron	12100		

REFCF01			
DEPTH	0.0'		
LITHOLOGY	MISC		
Iron	12000		

REFCF03			
DEPTH	0.0'		
LITHOLOGY	MISC		
Iron	11300		





REFCF10	
DEPTH	0.0'
LITHOLOGY	MISC
Iron	12300

OF08SD04	
DEPTH	0.0'
LITHOLOGY	MISC
Iron	14500

OF08SD05	
DEPTH	0.0'
LITHOLOGY	MISC
Iron	20500

OF08SD03	
DEPTH	0.0'
LITHOLOGY	MISC
Iron	12200

OF08SD02	
DEPTH	0.0'
LITHOLOGY	MISC
Iron	11700

OF08SD01	
DEPTH	0.0'
LITHOLOGY	MISC
Iron	14200

LF7GW10			
DEPTH	0.7'	2.7'	4.7'
LITHOLOGY	FILL	BE/DU	BE/DU
Iron	22000.000 a	8200.000 a	9700.000 a

LF7SB07			
DEPTH	0.2'	2.2'	5.9'
LITHOLOGY	BE/DU	FILL	BE/DU
Iron	23000.000 a	21000.000 a	11000.000 a

LF7SB06		
DEPTH	0.6'	2.9'
LITHOLOGY	FILL	BE/DU
Iron	44000.000 a	9400.000 a

LF7SB05		
DEPTH	0.6'	2.6'
LITHOLOGY	FILL	BE/DU
Iron	13000.000 a	9800.000 a

LF7SB08		
DEPTH	0.5'	2.5'

### EXPLANATION

- ▲ ESAP SEDIMENT SAMPLE
- △ SURFACE SOIL COMPOSITE SAMPLE
- SOIL BORING
- MONITORING WELL WITH SOIL SAMPLES
- ⊕ SOIL BORING WITH DISCRETE GROUNDWATER SAMPLE
- TEST PIT
- > STORM DRAIN WITH FLOW DIRECTION
- ▨ STAINED AREAS

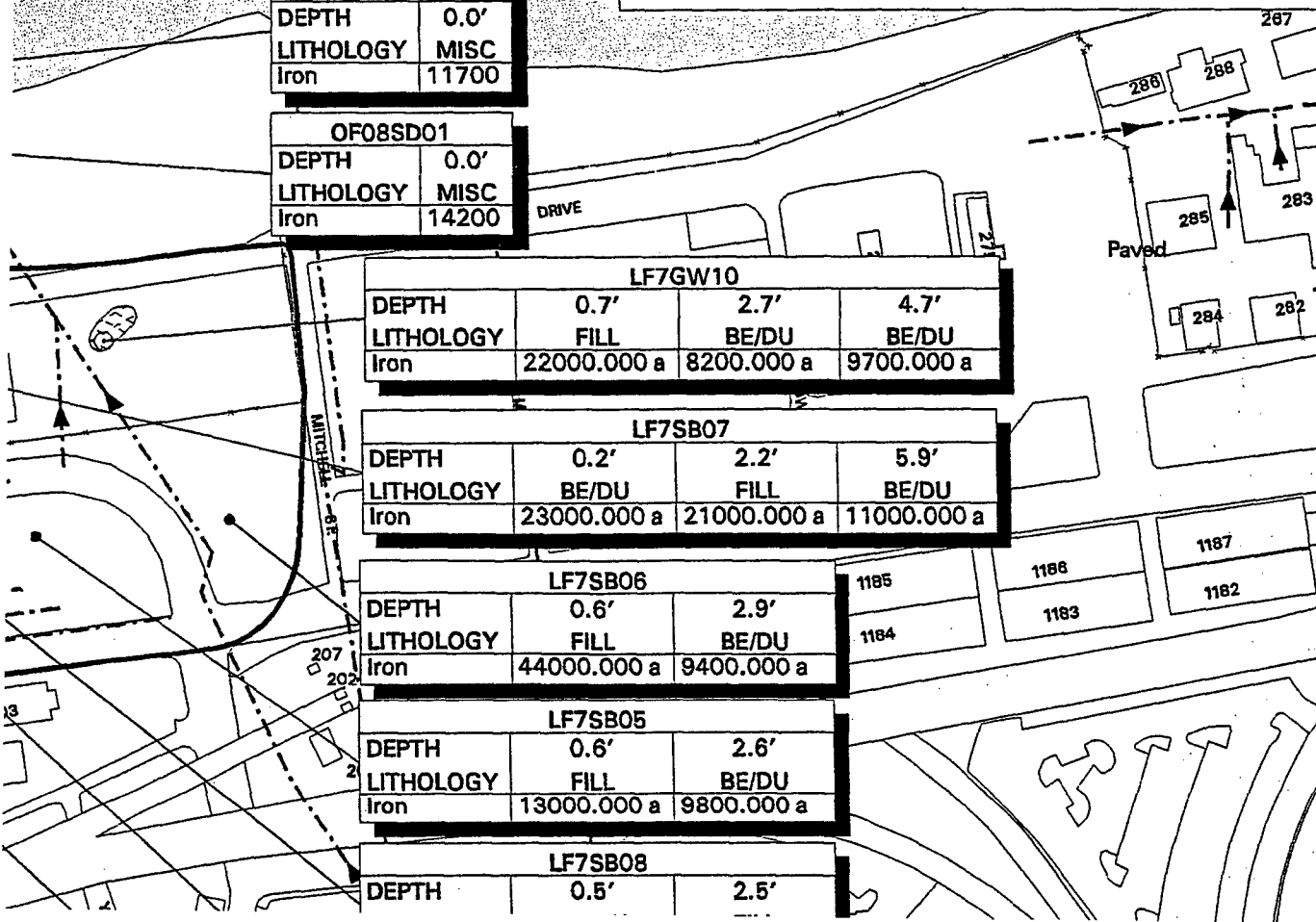
NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. DATA FOR COMPOSITE SAMPLES ARE POSTED AT THE CENTER POINT OF THE COMPOSITE SAMPLE LOCATIONS.

4. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.

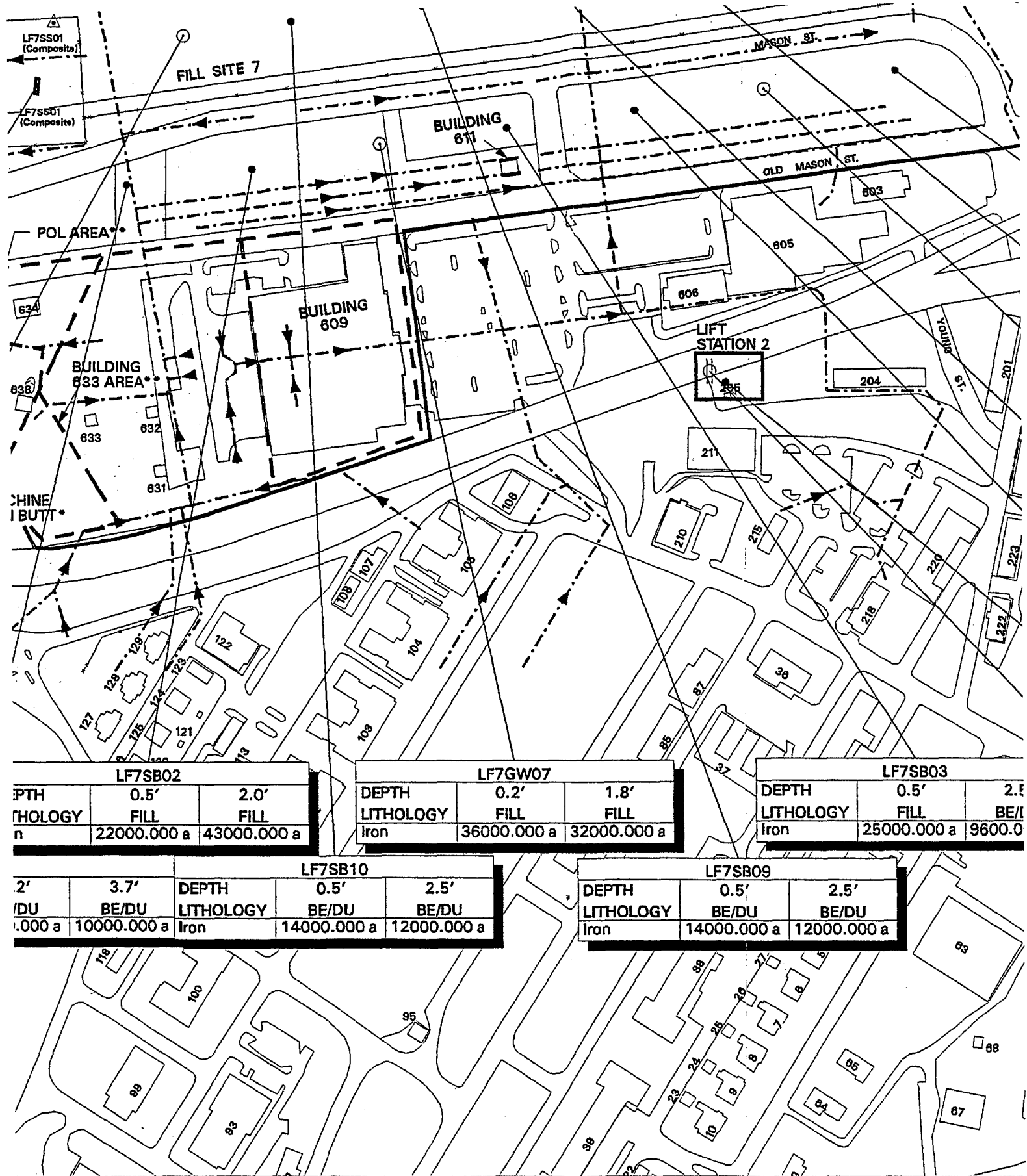
5. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.













LF7SB07

DEPTH	0.2'	2.2'	5.9'
LITHOLOGY	BE/DU	FILL	BE/DU
Iron	23000.000 a	21000.000 a	11000.000 a

LF7SB06

DEPTH	0.6'	2.9'
LITHOLOGY	FILL	BE/DU
Iron	44000.000 a	9400.000 a

LF7SB05

DEPTH	0.6'	2.6'
LITHOLOGY	FILL	BE/DU
Iron	13000.000 a	9800.000 a

LF7SB08

DEPTH	0.5'	2.5'
LITHOLOGY	BE/DU	FILL
Iron	23000.000 a	9500.000 a

LF7GW09

DEPTH	1.1'	2.6'	4.4'
LITHOLOGY	BE/DU	BE/DU	BE/DU
Iron	11000.000 a	12000.000 a	32000.000 a

LF7GW08

DEPTH	0.5'	3.5'
LITHOLOGY	BE/DU	BE/DU
Iron	20000.000 a	18000.000 a

LF7SB04

DEPTH	1.0'	3.0'
LITHOLOGY	FILL	BE/DU
Iron	13000.000 a	9600.000 a

CFLSSB04

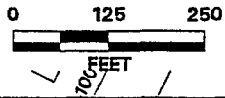
DEPTH	0.5'
LITHOLOGY	COLMA
Iron	13800

7SB03

DEPTH	0.5'	2.5'
LITHOLOGY	FILL	BE/DU
Iron	0.000 a	9600.000 a

CFLSSB03

DEPTH	0.5'
LITHOLOGY	BE/DU
Iron	34000 a



**DAMES & MOORE**

**CRISSY FIELD STUDY AREA  
FILL SITE 7 AND SEWER LIFT STATIONS  
CONCENTRATIONS OF IRON IN SOIL**

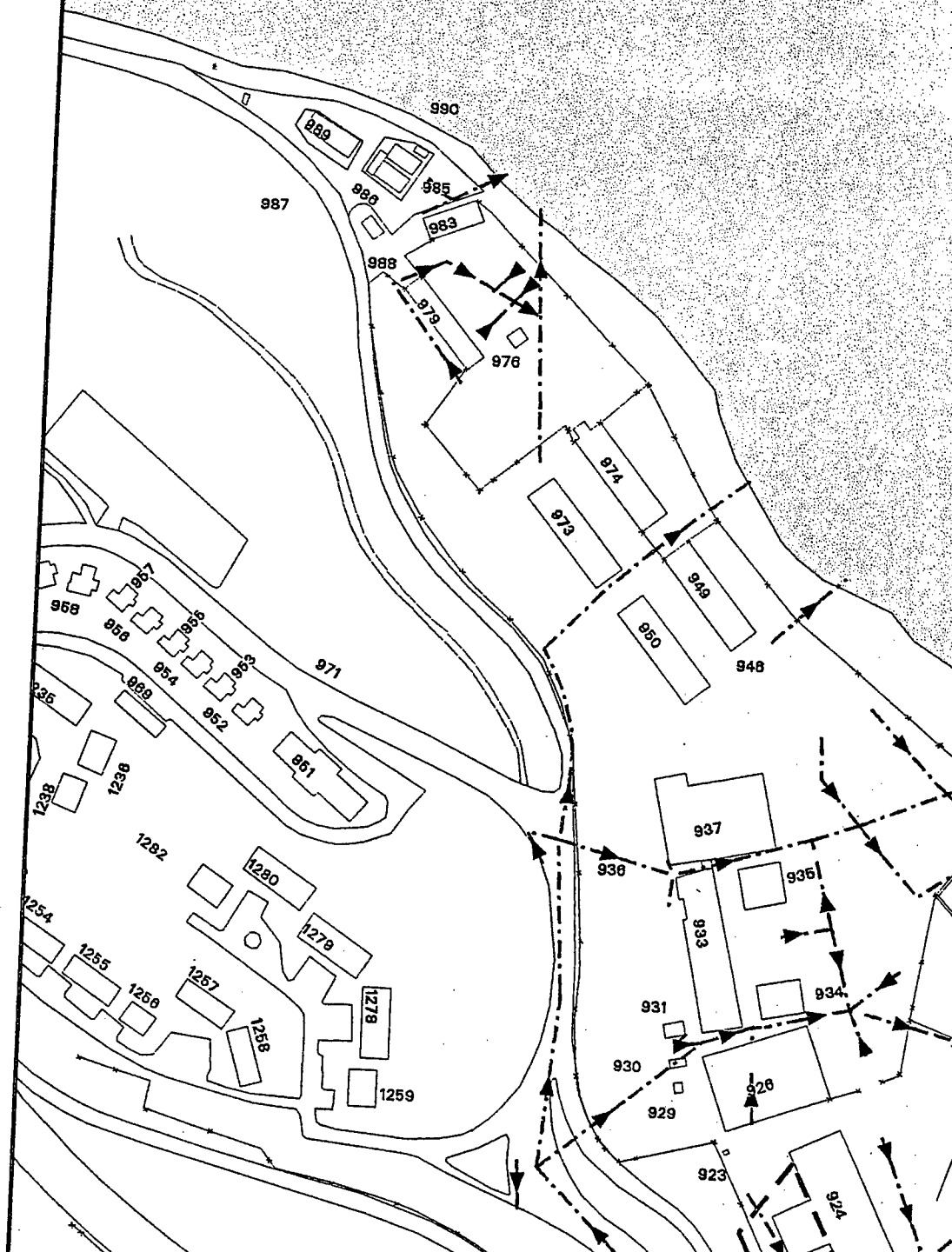
PFS26516

Date: January 1997

Figure 5.5-24

6







DEPT  
LITHO  
Lead

REFCF03	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	8.3

OF10SD05	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	5.27

OF10SD04	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	5.72

OF10SD03	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	6.9

OF10SD02	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	5.99

OF10SD01	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	6.58

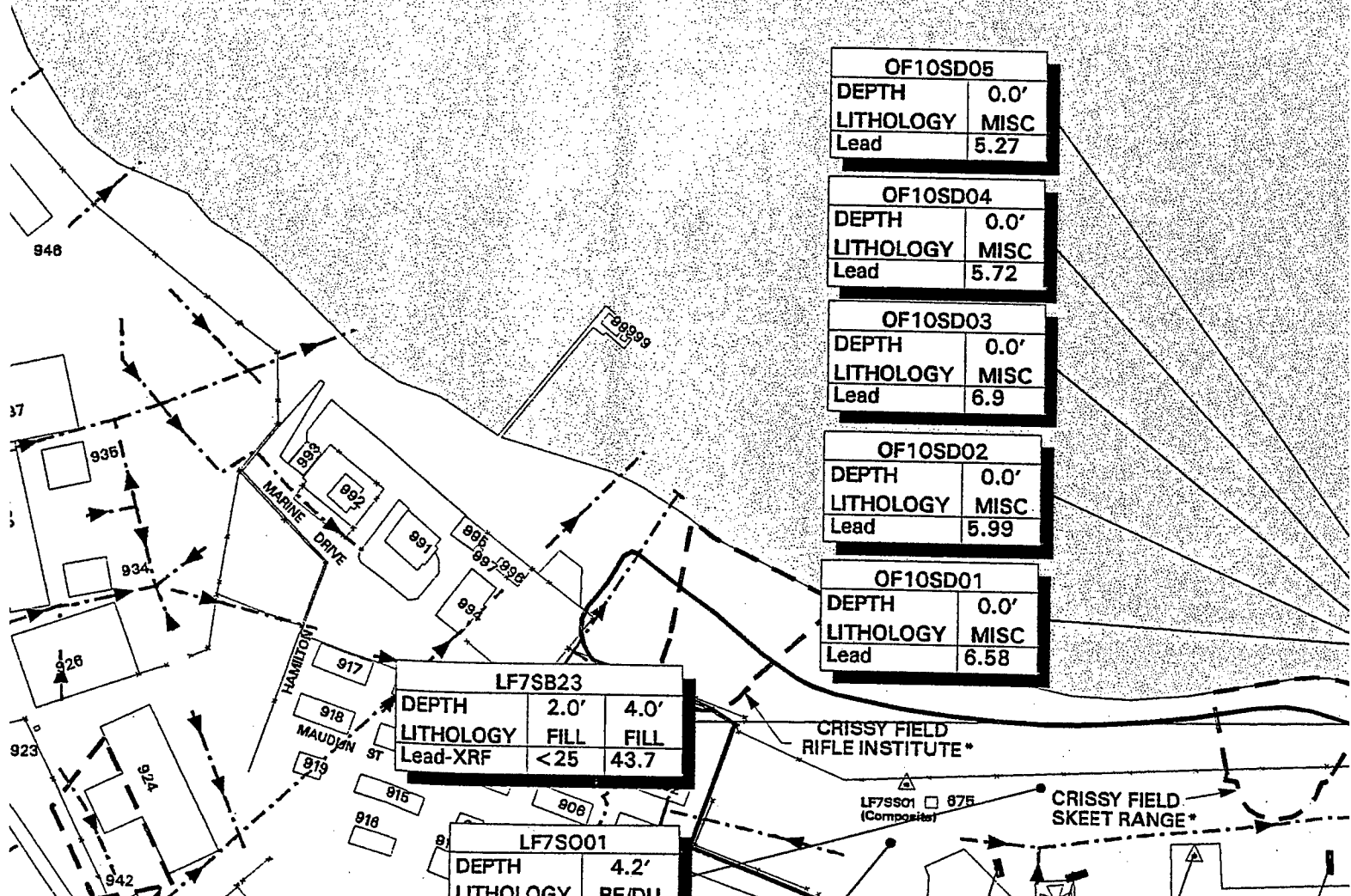
LF7SB23			
DEPTH	2.0'	4.0'	
LITHOLOGY	FILL	FILL	
Lead-XRF	<25	43.7	

LF7SO01	
DEPTH	4.2'
LITHOLOGY	BF/DII

CRISSY FIELD  
RIFLE INSTITUTE\*

CRISSY FIELD  
SKEET RANGE\*

LF7SS01 875  
(Composite)





REFCF06	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	11.1

REFCF02	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	5.2

DEPTH	
LITHOLOGY	
Lead	

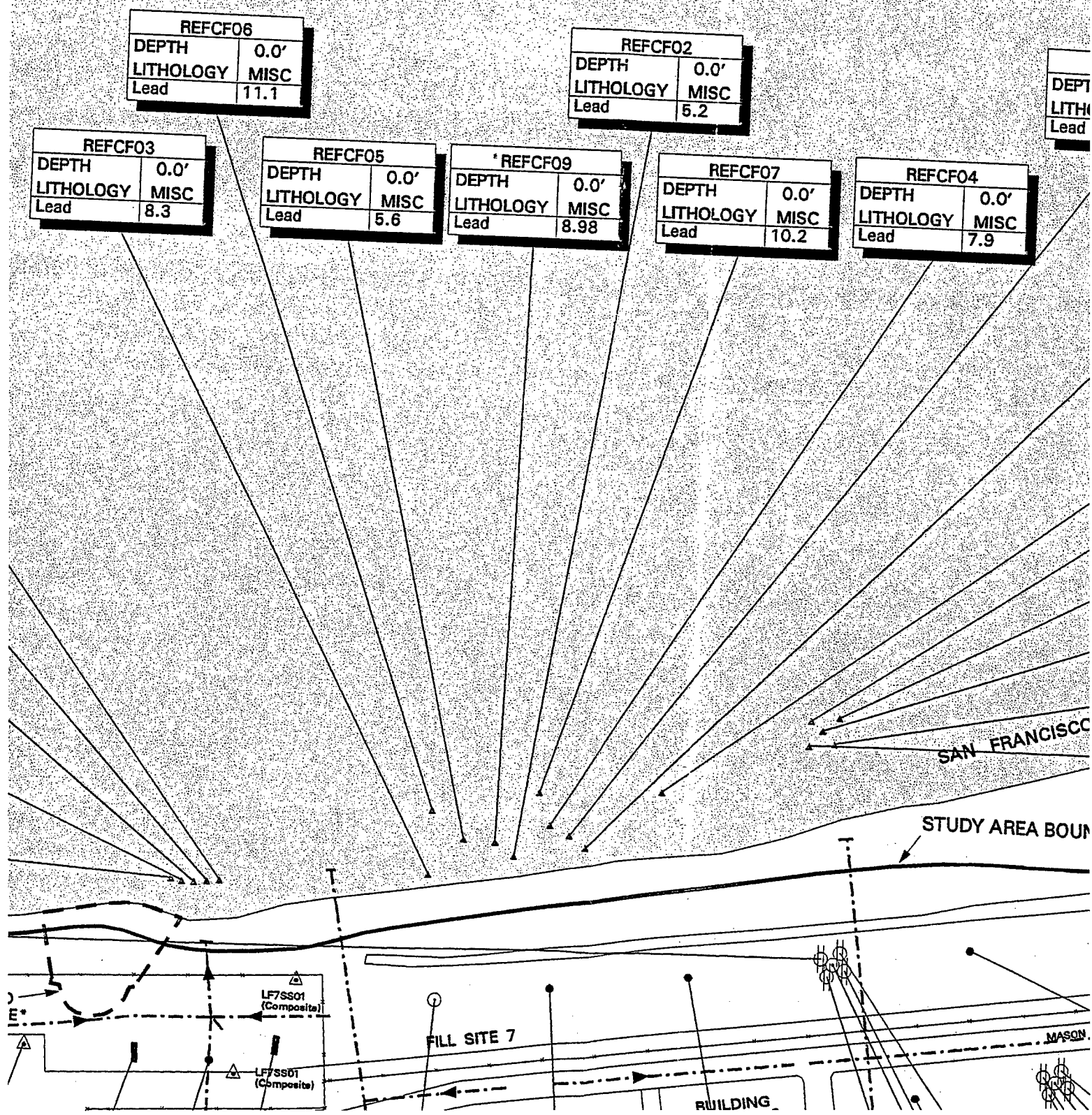
REFCF03	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	8.3

REFCF05	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	5.6

REFCF09	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	8.98

REFCF07	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	10.2

REFCF04	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	7.9





4

REFCF08	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	9.61

0.0'
MISC
7.9

REFCF01	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	9.7

REFCF10	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	9.24

OF08SD04	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	11.1

OF08SD05	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	19.3

OF08SD03	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	10.2

OF08SD02	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	12.1

OF08SD01	
DEPTH	0.0'
LITHOLOGY	MISC
Lead	32.7

AN FRANCISCO BAY

JDY AREA BOUNDARY

LF7GW10			
DEPTH	0.7'	2.7'	4.7'
LITHOLOGY	FILL	BE/DU	BE/DU
Lead	23.000 a	1.890	9.160

LF7SB07			
DEPTH	0.2'	2.2'	5.9'
LITHOLOGY	BE/DU	FILL	BE/DU
Lead	24.000 a	44.000 a	2.170

LF7SB06	
DEPTH	0.6'
	2.9'

288

Paved

275

274

2

MASON ST.

MITCHELL ST.



EXPLANATION

- ▲ ESAP SEDIMENT SAMPLE
- △ SURFACE SOIL COMPOSITE SAMPLE
- SOIL BORING
- MONITORING WELL WITH SOIL SAMPLES
- ⊗ SOIL BORING WITH DISCRETE GROUNDWATER SAMPLE
- TEST PIT
- - -> STORM DRAIN WITH FLOW DIRECTION
- ▨ STAINED AREAS

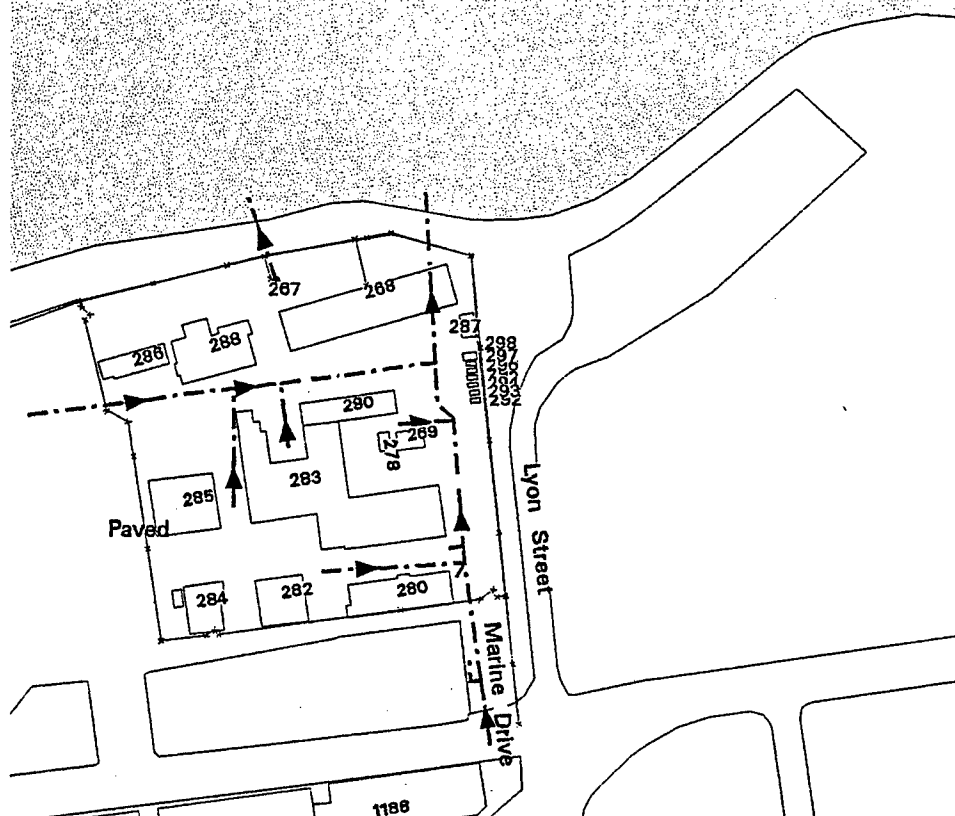
NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. DATA FOR COMPOSITE SAMPLES ARE POSTED AT THE CENTER POINT OF THE COMPOSITE SAMPLE LOCATIONS.

4. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.

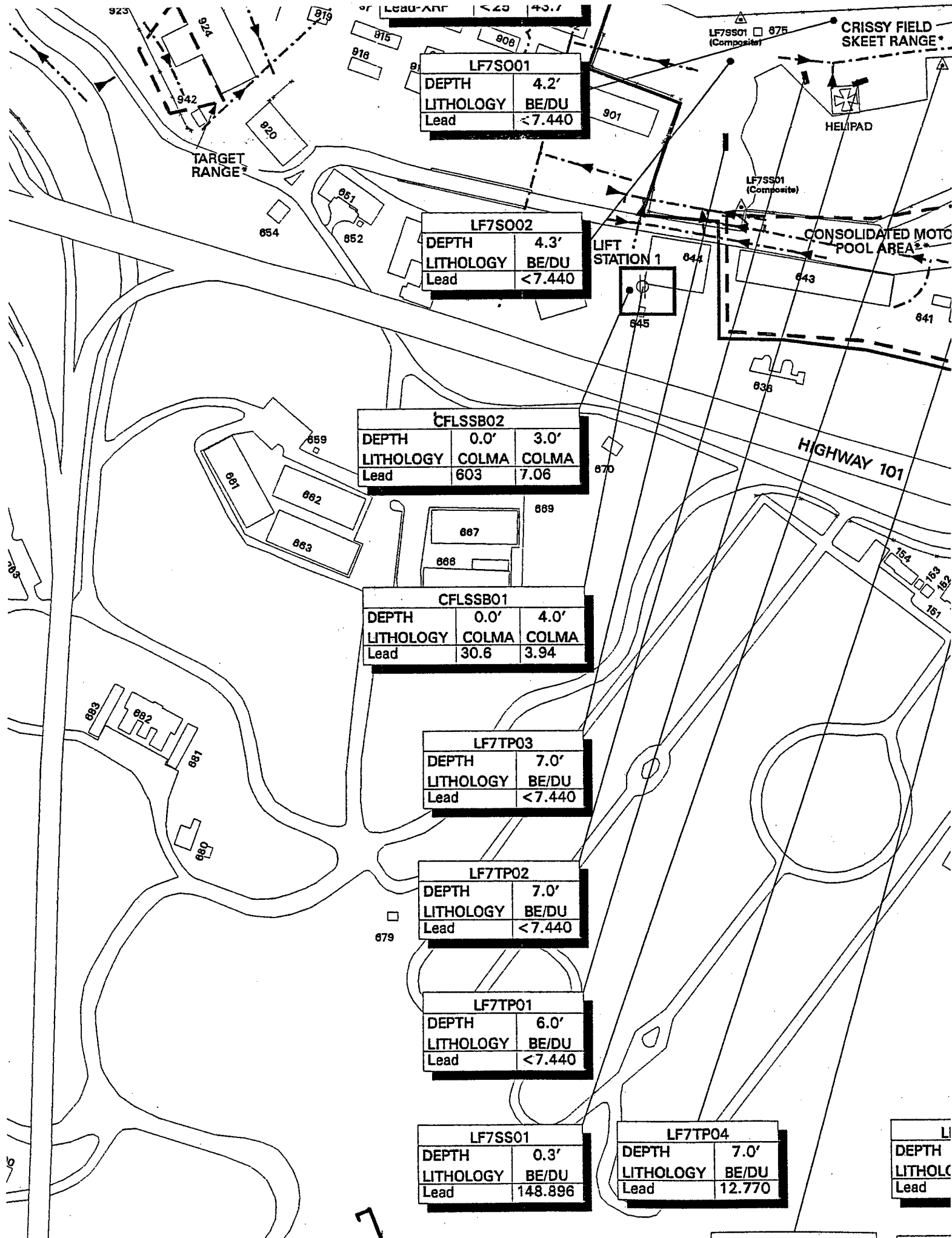
5. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.











LF7SO01		
DEPTH	4.2'	
LITHOLOGY	BE/DU	
Lead	<7.440	

LF7SO02		
DEPTH	4.3'	
LITHOLOGY	BE/DU	
Lead	<7.440	

CFLSSB02		
DEPTH	0.0'	3.0'
LITHOLOGY	COLMA	COLMA
Lead	603	7.06

CFLSSB01		
DEPTH	0.0'	4.0'
LITHOLOGY	COLMA	COLMA
Lead	30.6	3.94

LF7TP03		
DEPTH	7.0'	
LITHOLOGY	BE/DU	
Lead	<7.440	

LF7TP02		
DEPTH	7.0'	
LITHOLOGY	BE/DU	
Lead	<7.440	

LF7TP01		
DEPTH	6.0'	
LITHOLOGY	BE/DU	
Lead	<7.440	

LF7SS01		
DEPTH	0.3'	
LITHOLOGY	BE/DU	
Lead	148.896	

LF7TP04		
DEPTH	7.0'	
LITHOLOGY	BE/DU	
Lead	12.770	

LF7SS01		
DEPTH	7.0'	
LITHOLOGY	BE/DU	
Lead	12.770	





LF7TP05	
DEPTH	7.0'
LITHOLOGY	BE/DU
Lead	<7.440

LF7GW06		
DEPTH	0.0'	2.0'
LITHOLOGY	FILL	FILL
Lead	41.000 a	24.000 a

LF7SB10		
DEPTH	0.5'	2.5'
LITHOLOGY	BE/DU	BE/DU
Lead	16.000	11.500

LF7SB01	
DEPTH	0.5'
LITHOLOGY	BE/DU
Lead	19.000

LF7SB01	
DEPTH	0.5'
LITHOLOGY	BE/DU
Lead	19.000

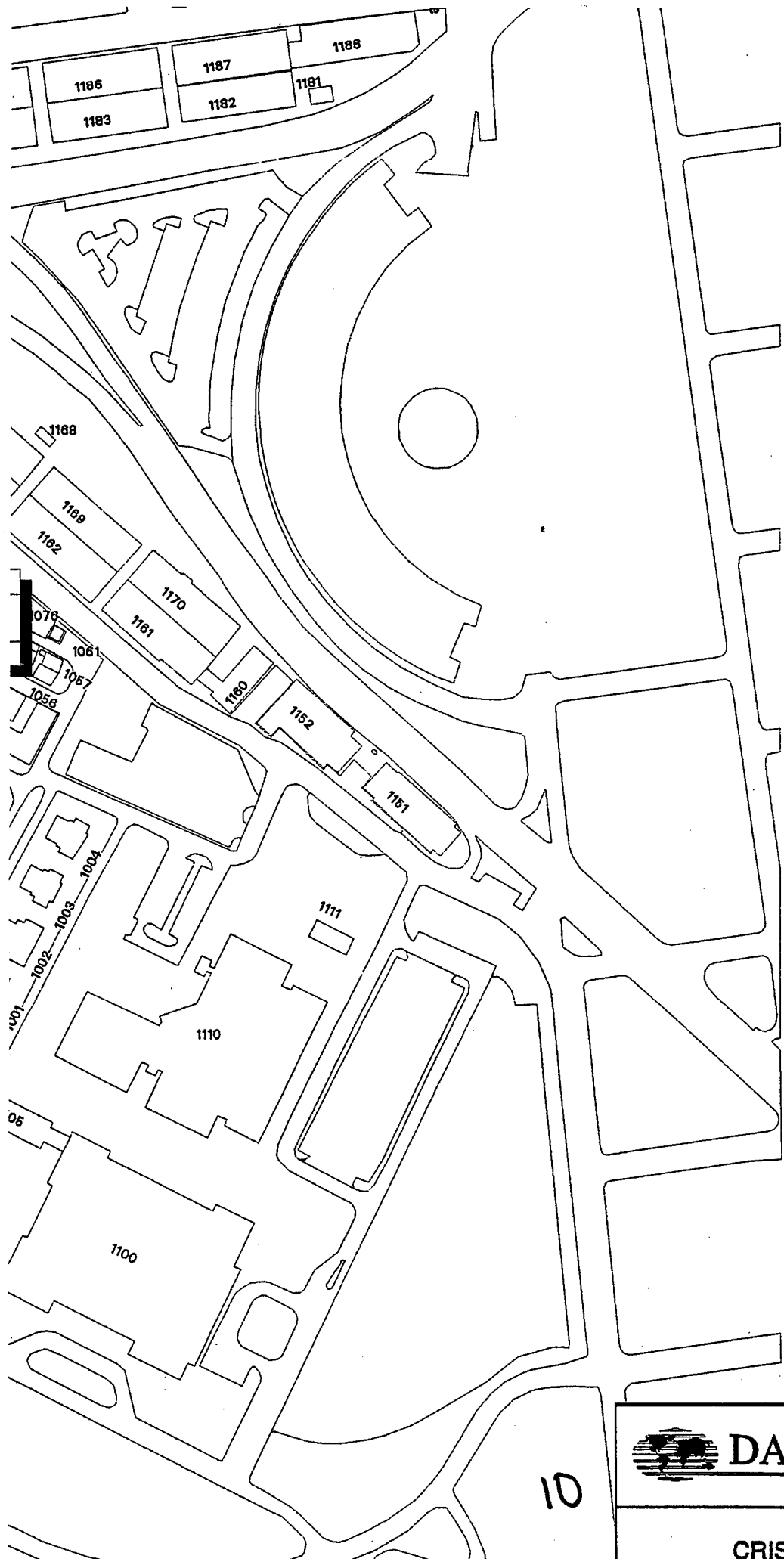
LF7SB02	
DEPTH	0.5'
LITHOLOGY	BE/DU
Lead	19.000

LF7GW07	
DEPTH	0.5'
LITHOLOGY	BE/DU
Lead	19.000









 **DAMES & MOORE**

**CRISSY FIELD STUDY AREA**



23 Dec 96 12:1529 Monday, base\_11x17\_v3.aml, profile base\_CRISSY2\_S\_12.gra, PGP

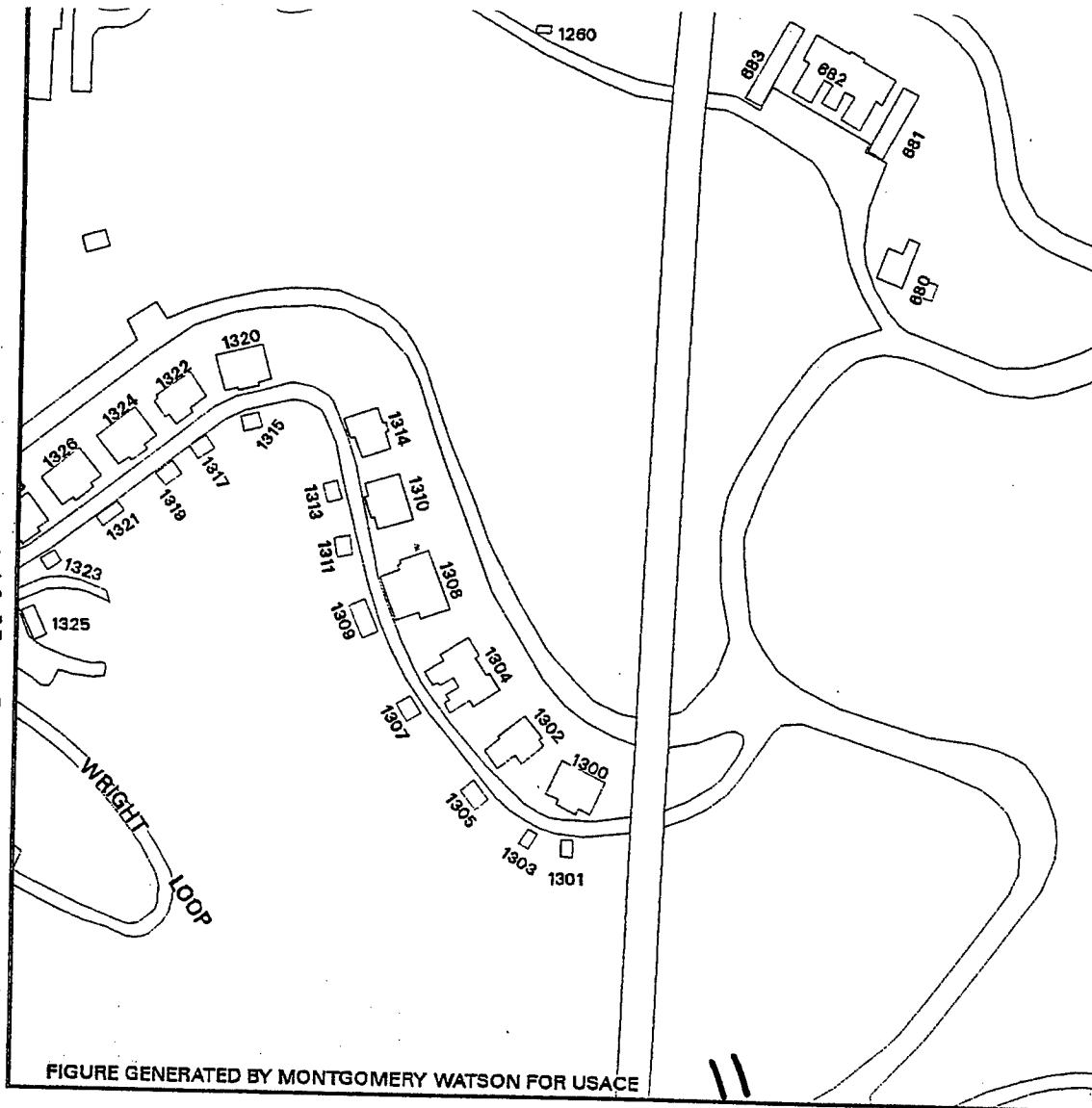


FIGURE GENERATED BY MONTGOMERY WATSON FOR USACE



LF7TP03	
DEPTH	7.0'
LITHOLOGY	BE/DU
Lead	<7.440

LF7TP02	
DEPTH	7.0'
LITHOLOGY	BE/DU
Lead	<7.440

LF7TP01	
DEPTH	6.0'
LITHOLOGY	BE/DU
Lead	<7.440

LF7SS01	
DEPTH	0.3'
LITHOLOGY	BE/DU
Lead	148.896

LF7TP04	
DEPTH	7.0'
LITHOLOGY	BE/DU
Lead	12.770

LF7TP05	
DEPTH	7.0'
LITHOLOGY	BE/DU
Lead	<7.440

DEPTH	
LITHOLOGY	
Lead	

LF7S003	
DEPTH	3.2'
LITHOLOGY	BE/DU
Lead	<7.440

LF7SB01			
DEPTH	0.7'	2.2'	3.7'
LITHOLOGY	FILL	BE/DU	BE/DU
Lead	29.000 a	3.020	1.710 f

12







LF7SB17		
DEPTH	2.0'	4.0'
LITHOLOGY	BE/DU	BE/DU
Lead	NA	0.7
Lead-XRF	< 25	< 25

LF7SB24		
DEPTH	2.0'	4.0'
LITHOLOGY	BE/DU	BE/DU
Lead	NA	5.49
Lead-XRF	38.8	< 25

LF7SB04		
DEPTH	1.0'	3.0'
LITHOLOGY	FILL	BE/DU
Lead	14.000	2.320

LF7SB21		
DEPTH	2.0'	4.0'
LITHOLOGY	BE/DU	BE/DU
Lead-XRF	< 25	< 25

LF7GW08		
DEPTH	0.5'	3.5'
LITHOLOGY	BE/DU	BE/DU
Lead	100.000 a	5.850

CFLSSB04		
DEPTH	0.5'	
LITHOLOGY	COLMA	
Lead	40.8	

LF7SB22		
DEPTH	2.0'	4.0'
LITHOLOGY	FILL	BE/DU
Lead-XRF	217	< 25

B03	
0.5'	2.5'
FILL	BE/DU
100.000 a	2.420

CFLSSB03		
DEPTH	0.5'	
LITHOLOGY	BE/DU	
Lead	48.9	





**DAMES & MOORE**

**CRISSY FIELD STUDY AREA  
FILL SITE 7 AND SEWER LIFT STATIONS  
CONCENTRATIONS OF LEAD IN SOIL**

PFS26521

Date: January 1997

Figure 5.5-25

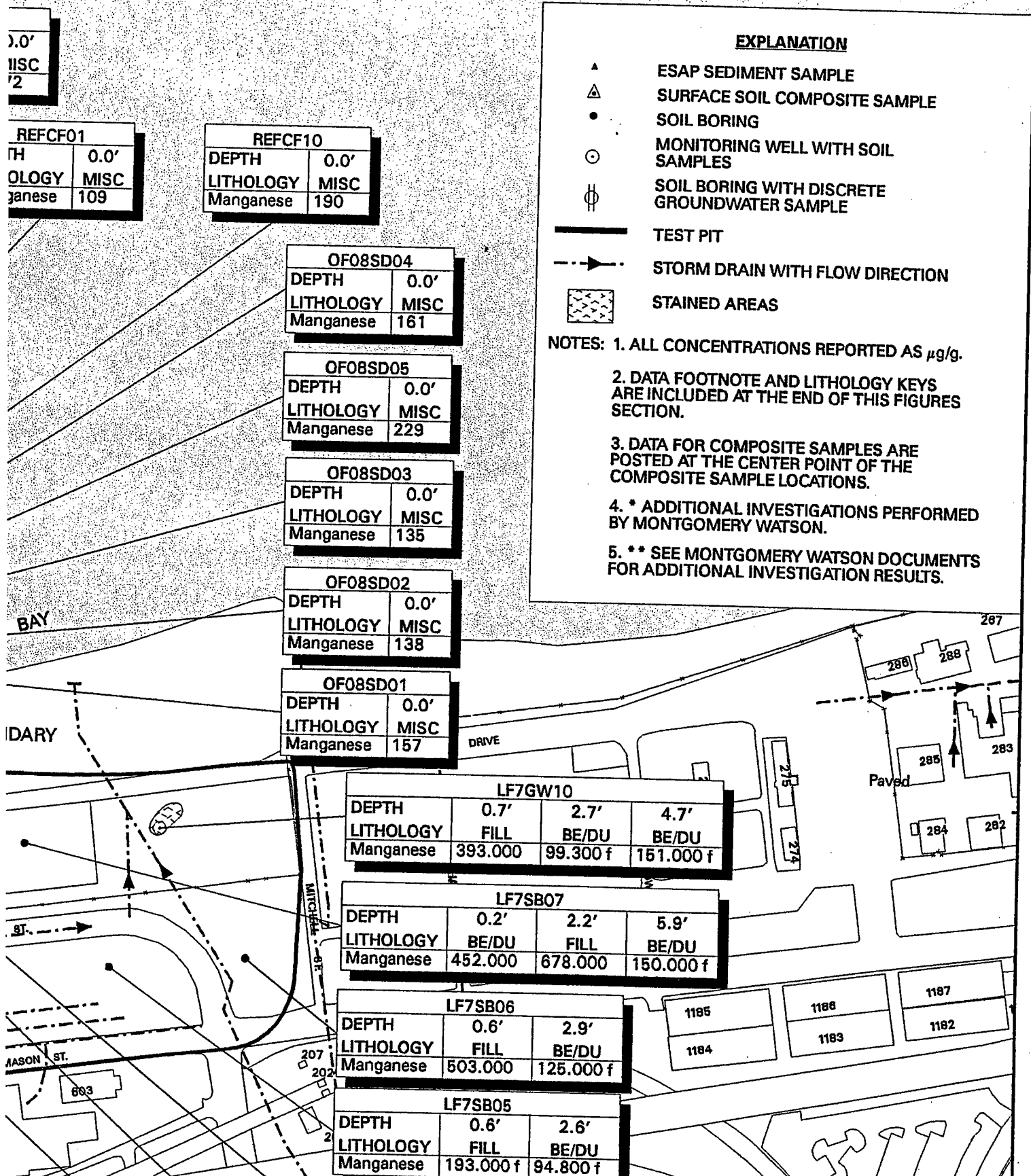








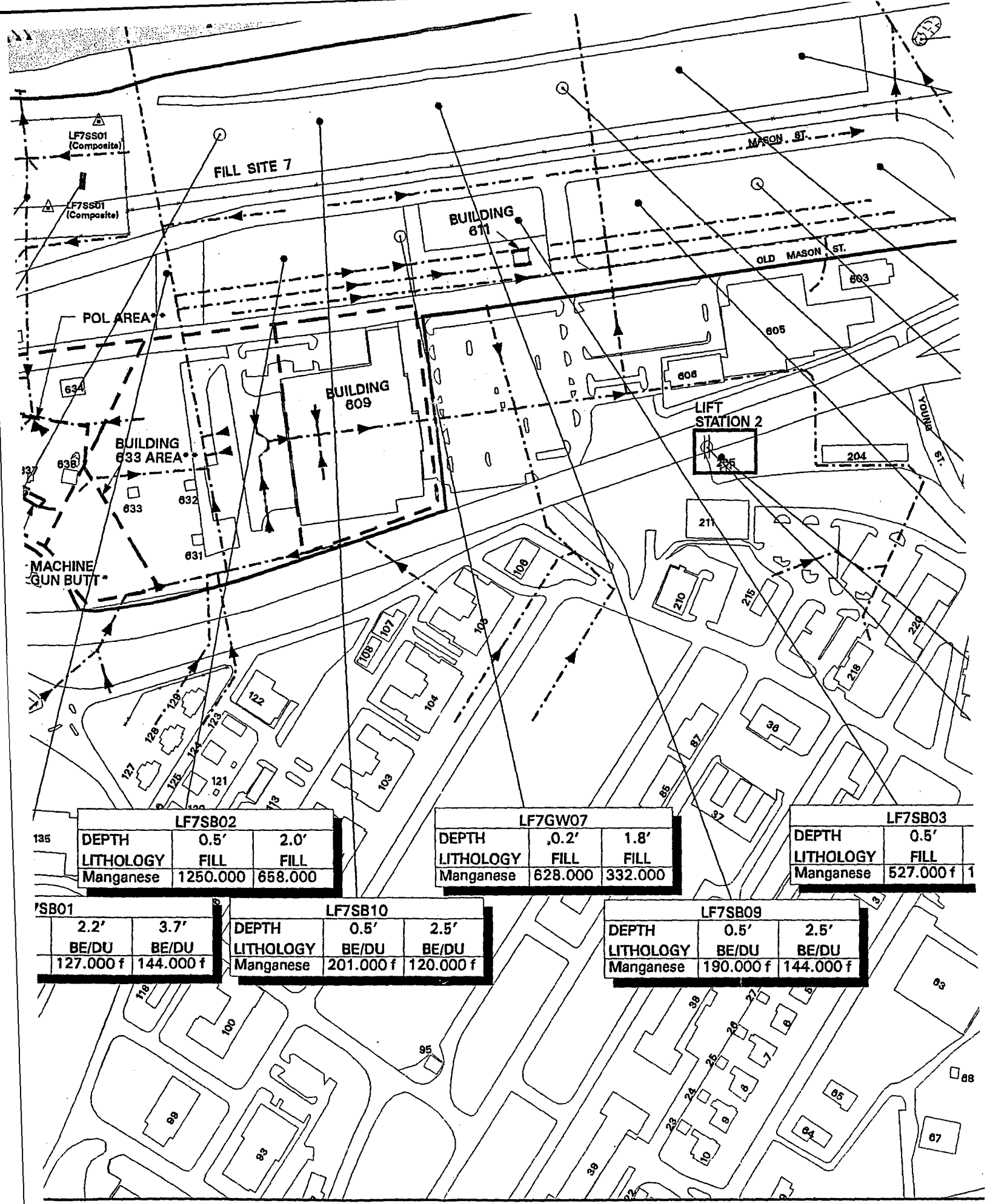












LF7SB02		
DEPTH	0.5'	2.0'
LITHOLOGY	FILL	FILL
Manganese	1250.000	658.000

LF7GW07		
DEPTH	0.2'	1.8'
LITHOLOGY	FILL	FILL
Manganese	628.000	332.000

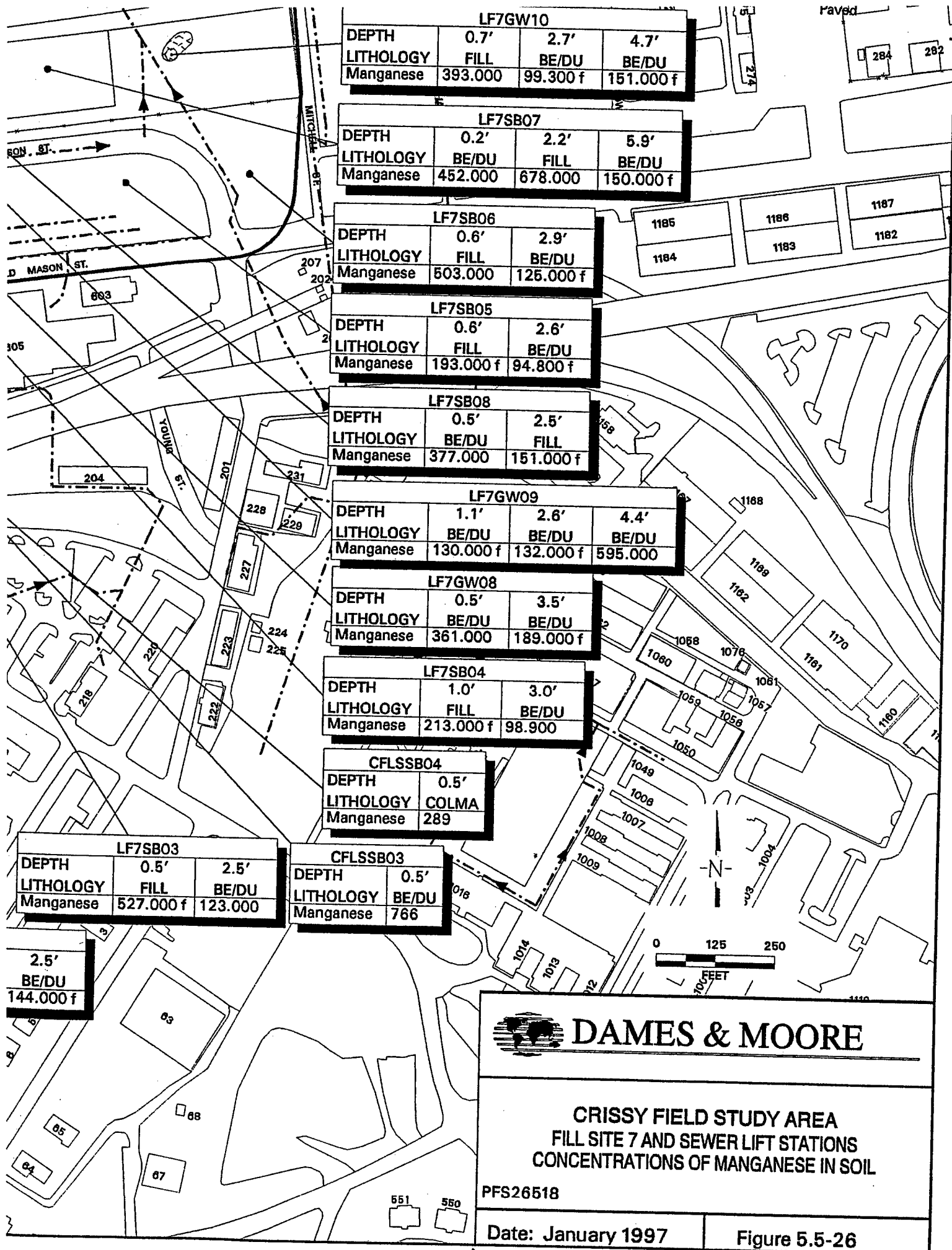
LF7SB03		
DEPTH	0.5'	
LITHOLOGY	FILL	
Manganese	527.000 f	1

LF7SB01	
2.2'	3.7'
BE/DU	BE/DU
127.000 f	144.000 f

LF7SB10		
DEPTH	0.5'	2.5'
LITHOLOGY	BE/DU	BE/DU
Manganese	201.000 f	120.000 f

LF7SB09		
DEPTH	0.5'	2.5'
LITHOLOGY	BE/DU	BE/DU
Manganese	190.000 f	144.000 f







REFCF06		
DEPTH	0.0'	
LITHOLOGY	MISC	
Mercury	<0.1	

REFCF03		
DEPTH	0.0'	
LITHOLOGY	MISC	
Mercury	<0.5	

REFCF05		
DEPTH	0.0'	
LITHOLOGY	MISC	
Mercury	<0.5	

OF10SD05		
DEPTH	0.0'	
LITHOLOGY	MISC	
Mercury	<0.1	

OF10SD04		
DEPTH	0.0'	
LITHOLOGY	MISC	
Mercury	<0.1	

OF10SD03		
DEPTH	0.0'	
LITHOLOGY	MISC	
Mercury	<0.1	

OF10SD02		
DEPTH	0.0'	
LITHOLOGY	MISC	
Mercury	<0.1	

OF10SD01		
DEPTH	0.0'	
LITHOLOGY	MISC	
Mercury	0.138	

LF7SO01		
DEPTH	4.2'	
LITHOLOGY	BE/DU	
Mercury	0.072	

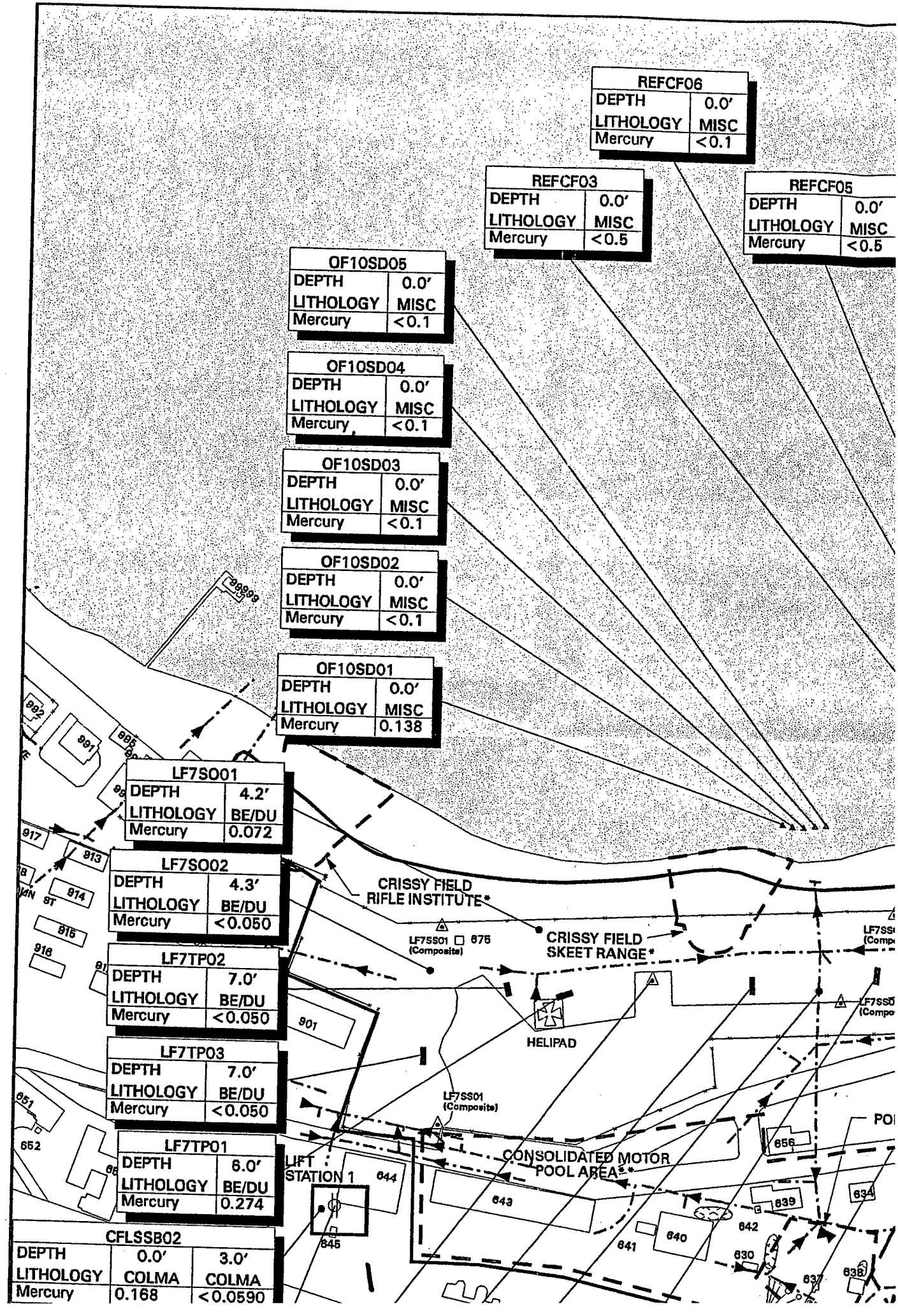
LF7SO02		
DEPTH	4.3'	
LITHOLOGY	BE/DU	
Mercury	<0.050	

LF7TP02		
DEPTH	7.0'	
LITHOLOGY	BE/DU	
Mercury	<0.050	

LF7TP03		
DEPTH	7.0'	
LITHOLOGY	BE/DU	
Mercury	<0.050	

LF7TP01		
DEPTH	6.0'	
LITHOLOGY	BE/DU	
Mercury	0.274	

CFLSSB02			
DEPTH	0.0'	3.0'	
LITHOLOGY	COLMA	COLMA	
Mercury	0.168	<0.0590	





REFCF02	
DEPTH	0.0'
LITHOLOGY	MISC
Mercury	<0.5

REFCF08	
DEPTH	0.0'
LITHOLOGY	MISC
Mercury	<0.1

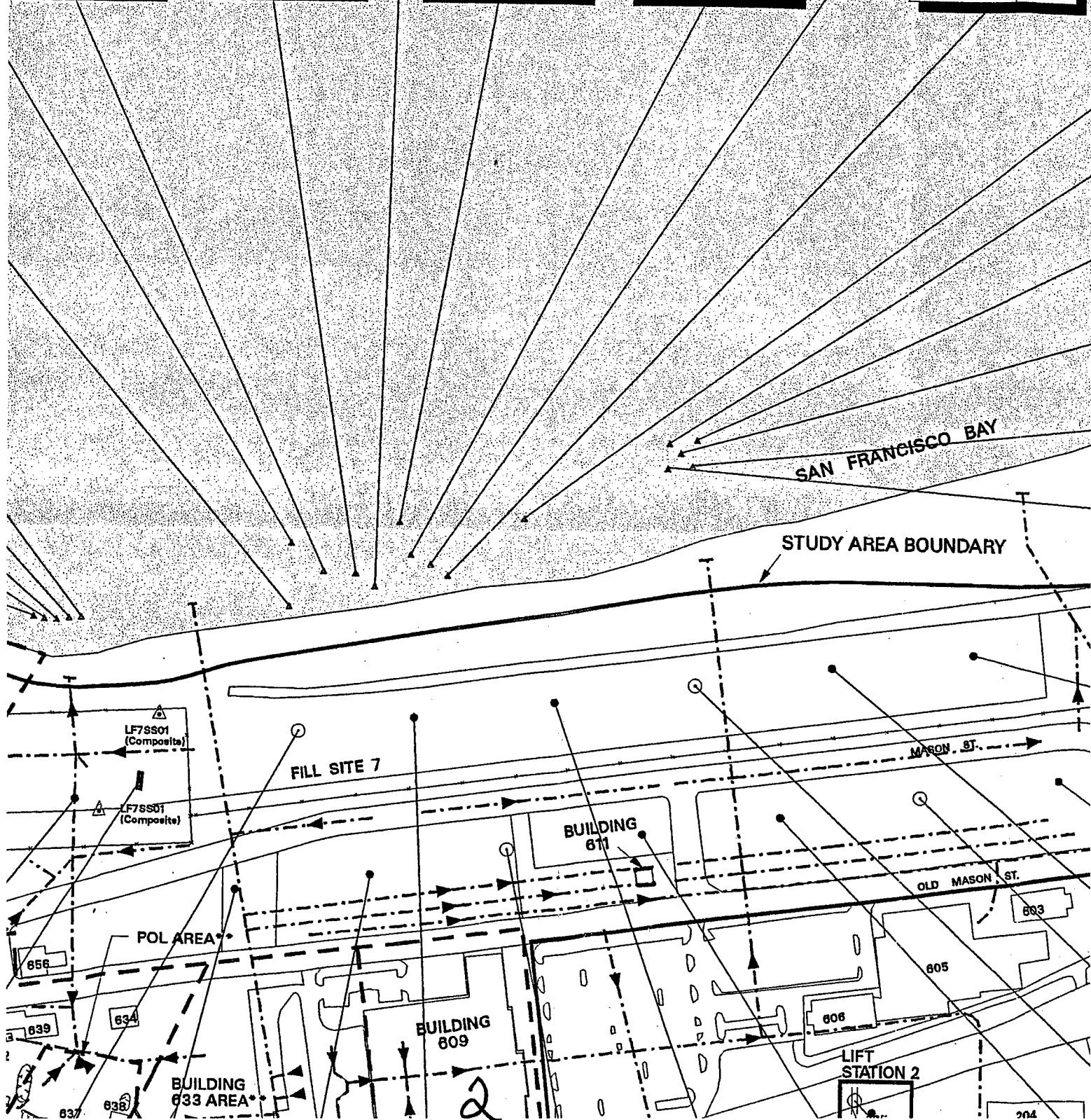
REFCF05	
DEPTH	0.0'
LITHOLOGY	MISC
Mercury	<0.5

REFCF09	
DEPTH	0.0'
LITHOLOGY	MISC
Mercury	<0.1

REFCF07	
DEPTH	0.0'
LITHOLOGY	MISC
Mercury	0.156

REFCF04	
DEPTH	0.0'
LITHOLOGY	MISC
Mercury	<0.5

REFCF01	
DEPTH	0.0'
LITHOLOGY	MISC
Mercury	<0.5





3  
0.0'  
MISC  
<0.1

REFCF01	
PTH	0.0'
HOLOGY	MISC
rcury	<0.5

REFCF10	
DEPTH	0.0'
LITHOLOGY	MISC
Mercury	<0.1

OF08SD04	
DEPTH	0.0'
LITHOLOGY	MISC
Mercury	<0.1

OF08SD05	
DEPTH	0.0'
LITHOLOGY	MISC
Mercury	<0.1

OF08SD03	
DEPTH	0.0'
LITHOLOGY	MISC
Mercury	<0.1

OF08SD02	
DEPTH	0.0'
LITHOLOGY	MISC
Mercury	<0.1

OF08SD01	
DEPTH	0.0'
LITHOLOGY	MISC
Mercury	<0.1

LF7GW10			
DEPTH	0.7'	2.7'	4.7'
LITHOLOGY	FILL	BE/DU	BE/DU
Mercury	0.074	<0.027	0.044

LF7SB07			
DEPTH	0.2'	2.2'	5.9'
LITHOLOGY	BE/DU	FILL	BE/DU
Mercury	0.085	<0.027	<0.027

LF7SB06		
DEPTH	0.6'	2.9'
LITHOLOGY	FILL	BE/DU
Mercury	0.132	<0.027

LF7SB05		
DEPTH	0.6'	2.6'
LITHOLOGY	FILL	BE/DU
Mercury	0.060	<0.027

LF7SB08		
DEPTH	0.5'	2.5'
LITHOLOGY	BE/DU	FILL
Mercury	0.080 a	0.036

LF7GW09

## EXPLANATION

- ▲ ESAP SEDIMENT SAMPLE
- △ SURFACE SOIL COMPOSITE SAMPLE
- SOIL BORING
- MONITORING WELL WITH SOIL SAMPLES
- ⊕ SOIL BORING WITH DISCRETE GROUNDWATER SAMPLE

— TEST PIT

---> STORM DRAIN WITH FLOW DIRECTION



STAINED AREAS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. DATA FOR COMPOSITE SAMPLES ARE POSTED AT THE CENTER POINT OF THE COMPOSITE SAMPLE LOCATIONS.

4. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.

5. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.

BAY

NDARY

DRIVE

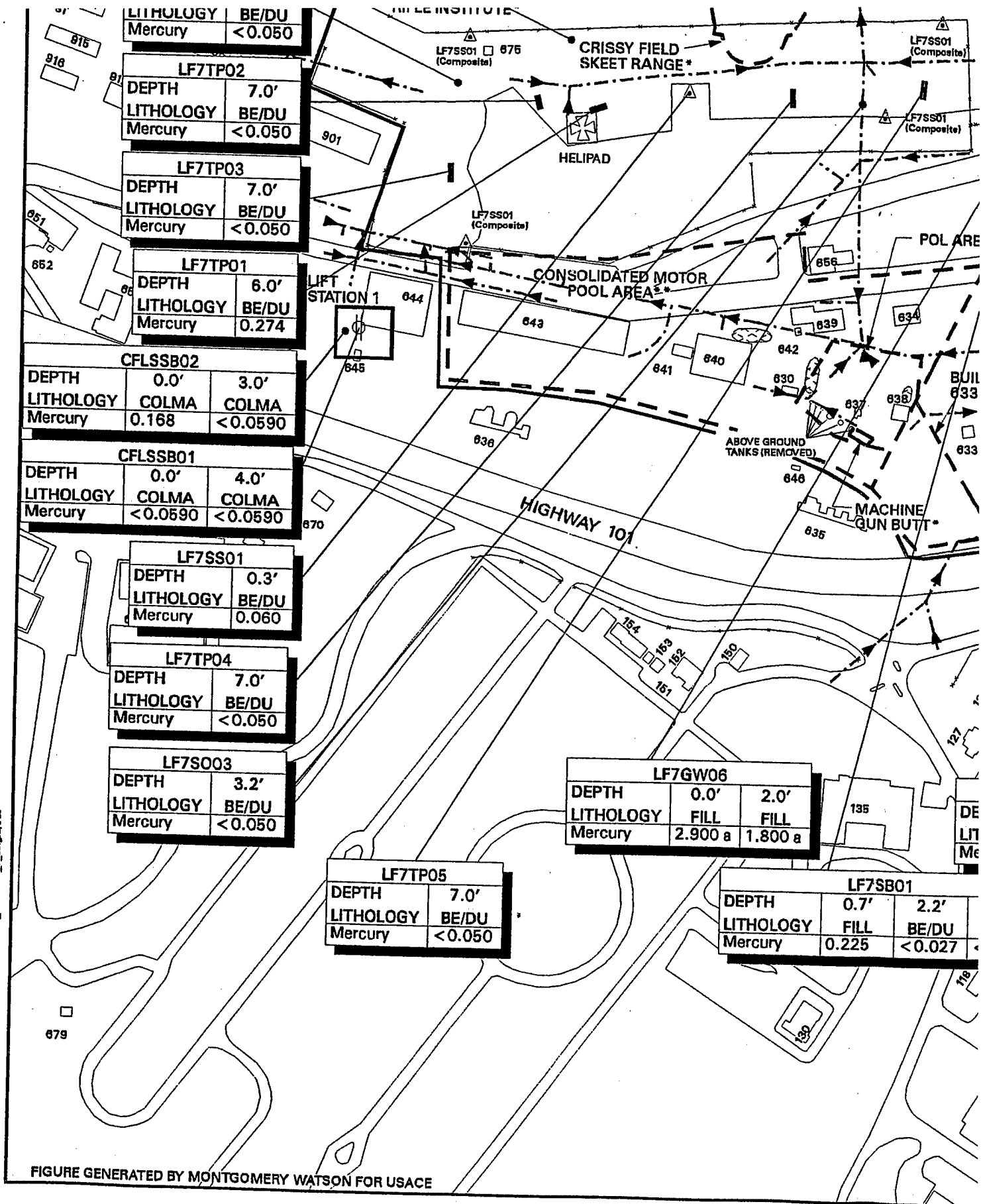
MASON ST.

YOUNG ST.

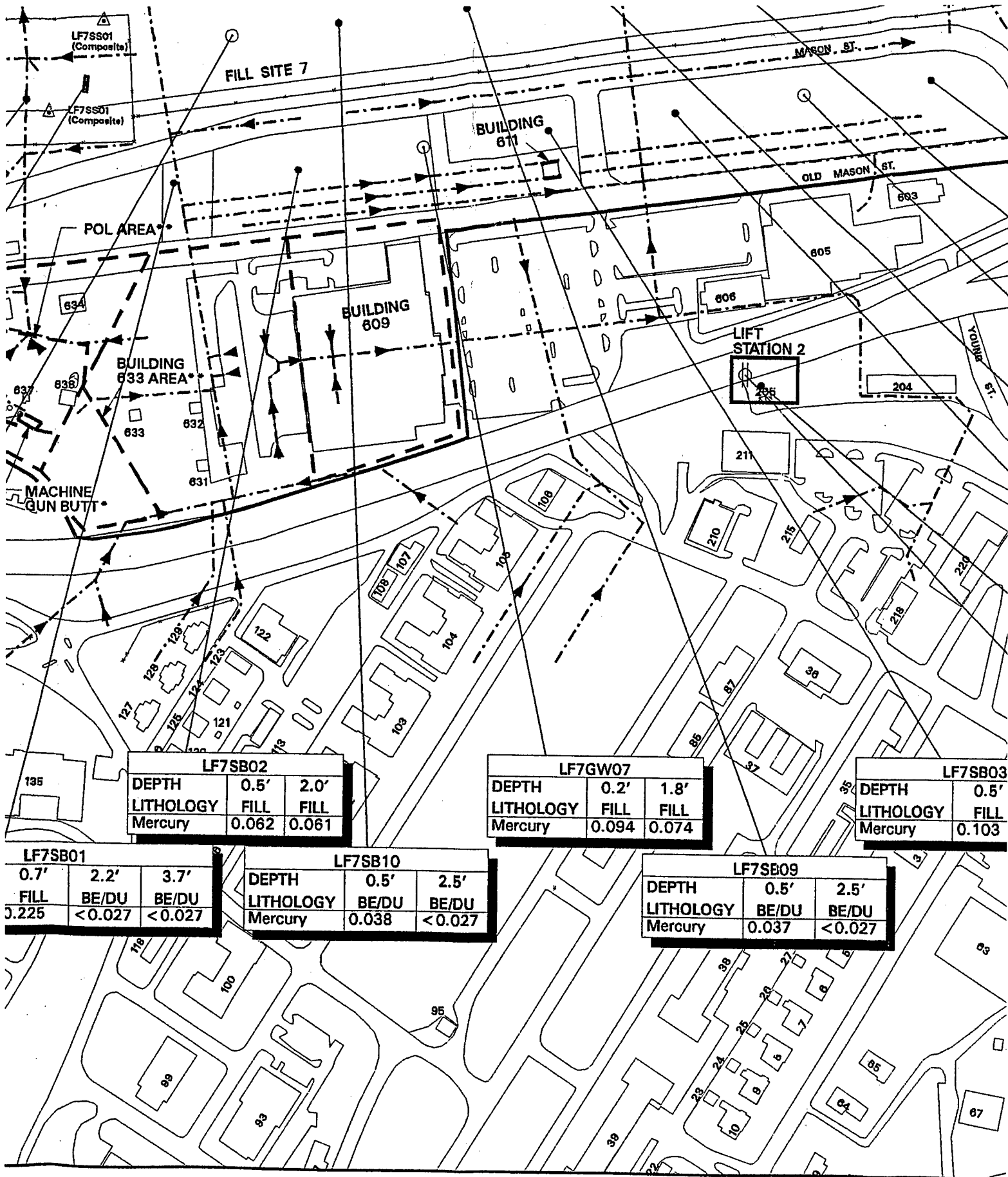
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3

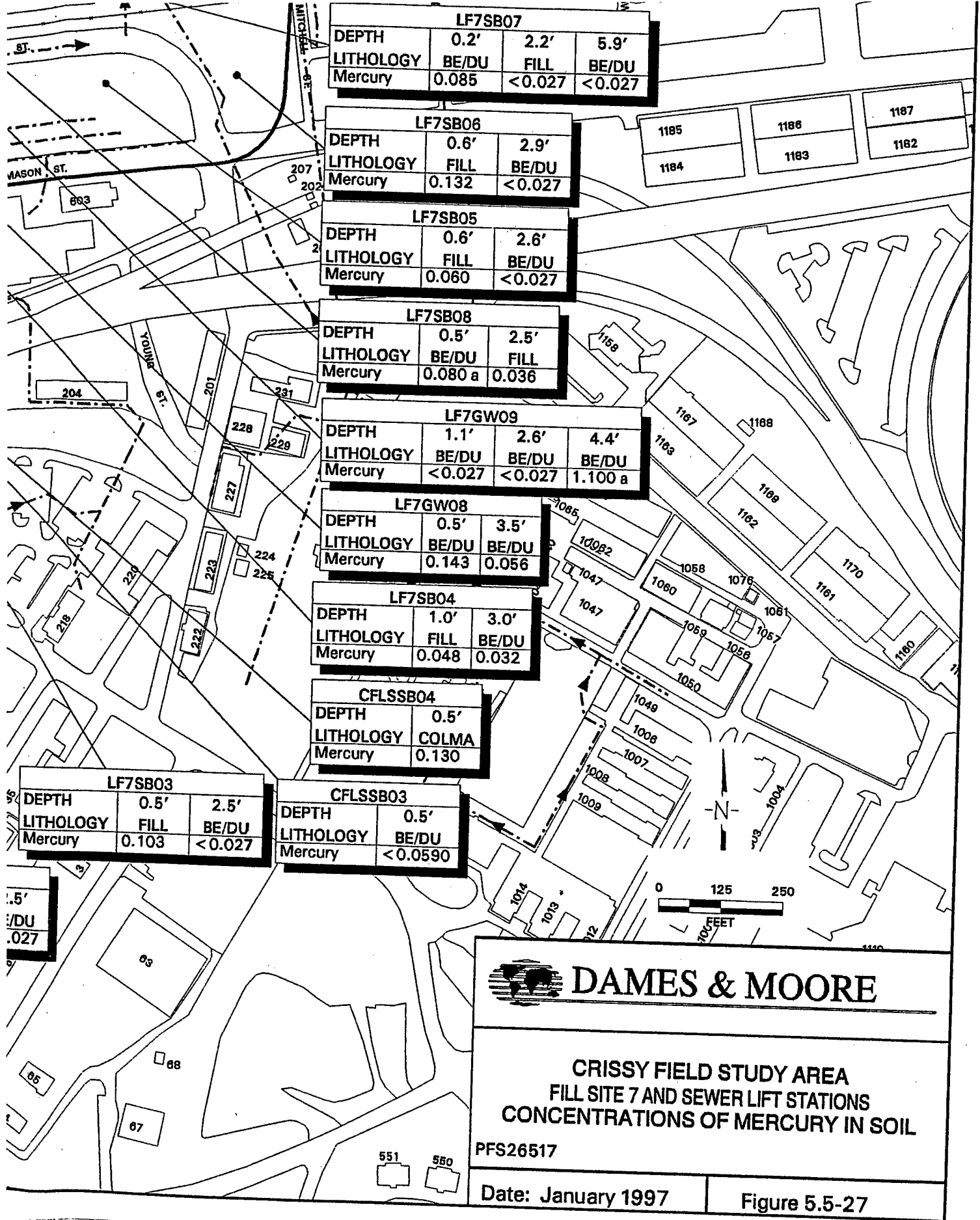








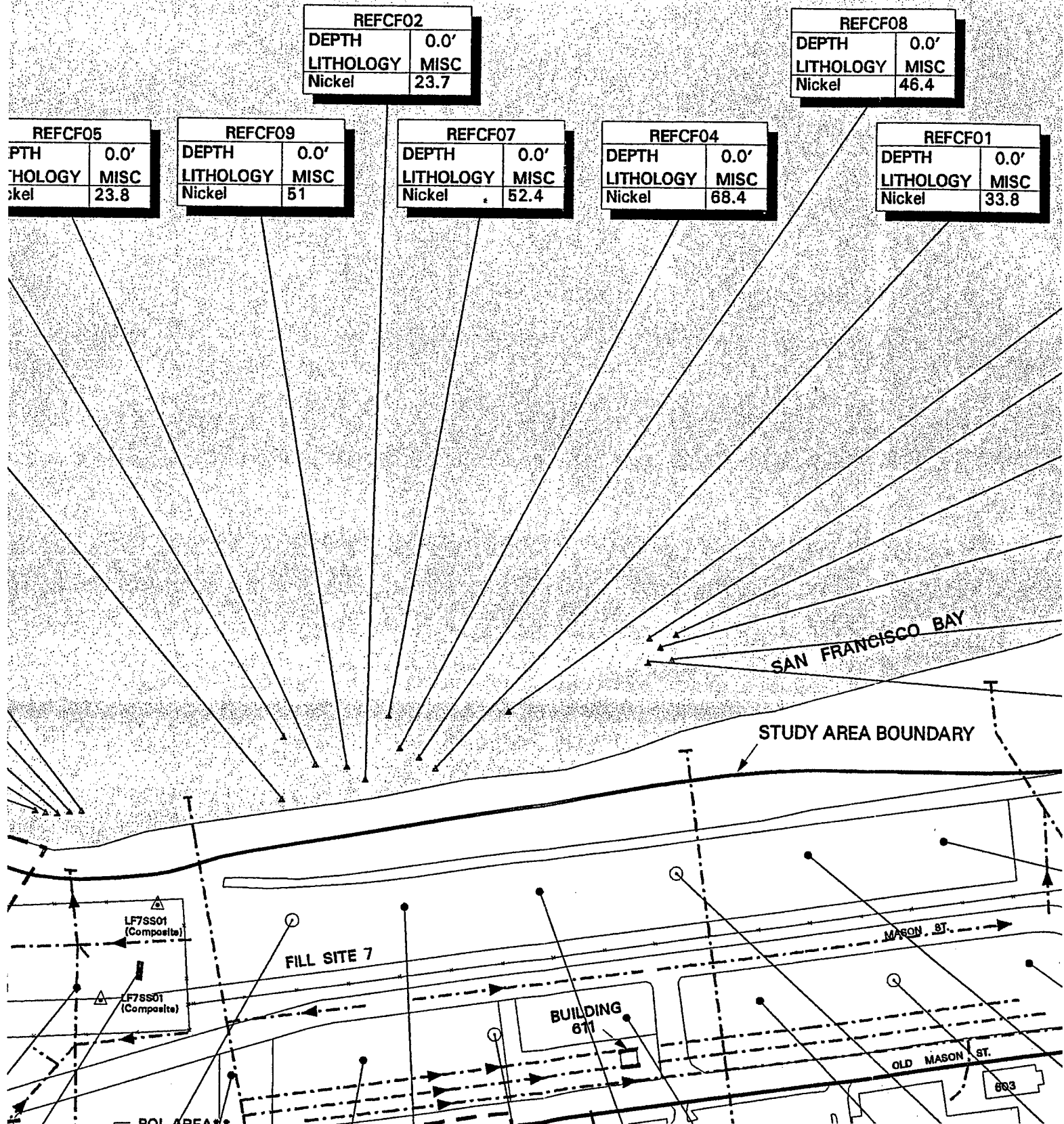




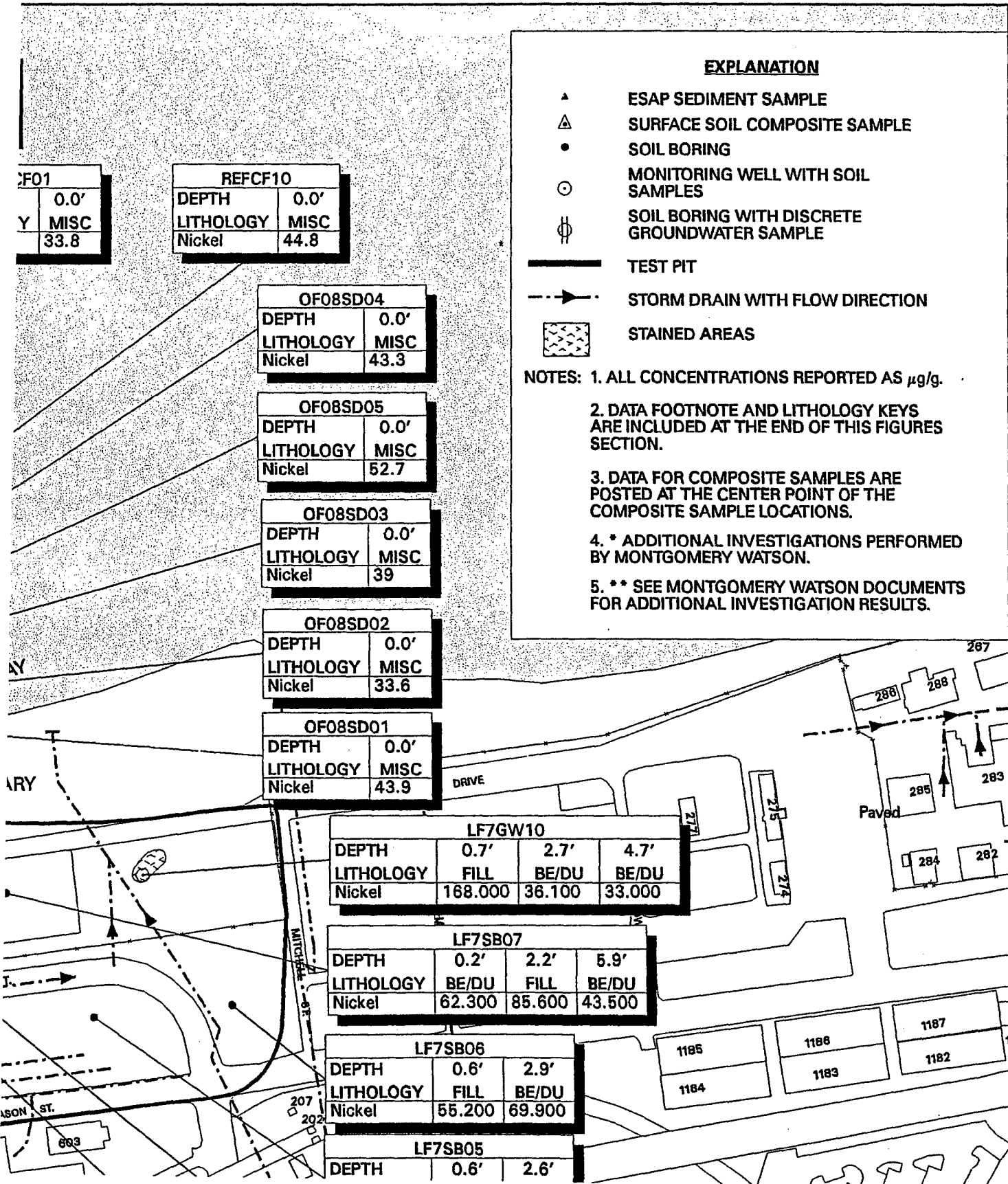








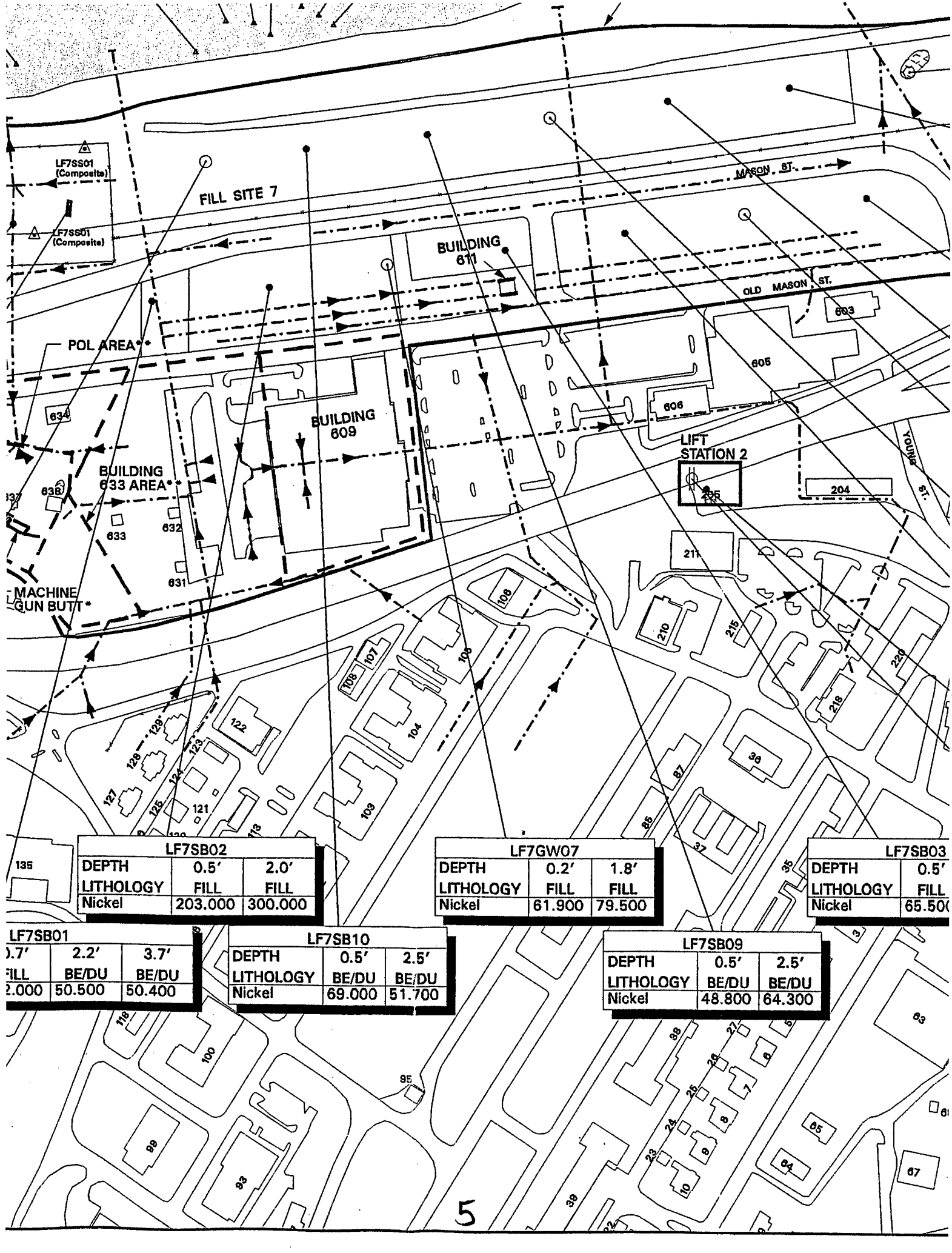












LF7SB02		
DEPTH	0.5'	2.0'
LITHOLOGY	FILL	FILL
Nickel	203.000	300.000

LF7GW07		
DEPTH	0.2'	1.8'
LITHOLOGY	FILL	FILL
Nickel	61.900	79.500

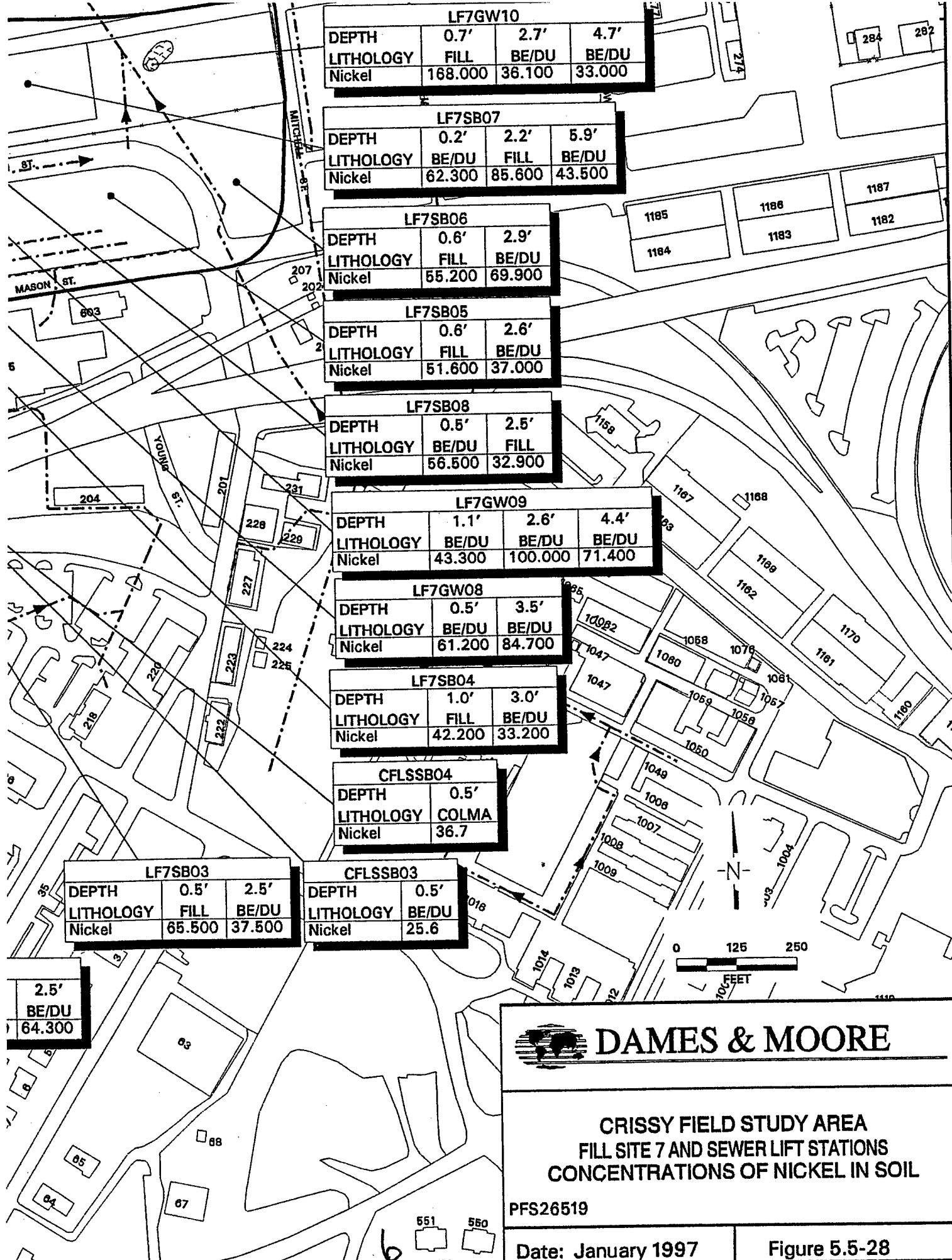
LF7SB03		
DEPTH	0.5'	
LITHOLOGY	FILL	
Nickel	65.500	

LF7SB01		
DEPTH	0.7'	2.2'
LITHOLOGY	BE/DU	BE/DU
Nickel	2.000	50.500

LF7SB10		
DEPTH	0.5'	2.5'
LITHOLOGY	BE/DU	BE/DU
Nickel	69.000	51.700

LF7SB09		
DEPTH	0.5'	2.5'
LITHOLOGY	BE/DU	BE/DU
Nickel	48.800	64.300







REFCF06	
DEPTH	0.0'
LITHOLOGY	MISC
Vanadium	22.7

REFCF03	
DEPTH	0.0'
LITHOLOGY	MISC
Vanadium	19.9

REFCF05	
DEPTH	0.0'
LITHOLOGY	MISC
Vanadium	15.3

OF10SD05	
DEPTH	0.0'
LITHOLOGY	MISC
Vanadium	17.6

OF10SD04	
DEPTH	0.0'
LITHOLOGY	MISC
Vanadium	18.2

OF10SD03	
DEPTH	0.0'
LITHOLOGY	MISC
Vanadium	15.1

OF10SD02	
DEPTH	0.0'
LITHOLOGY	MISC
Vanadium	17.8

OF10SD01	
DEPTH	0.0'
LITHOLOGY	MISC
Vanadium	18.6

LF7SO01	
DEPTH	4.2'
LITHOLOGY	BE/DU
Vanadium	32.190

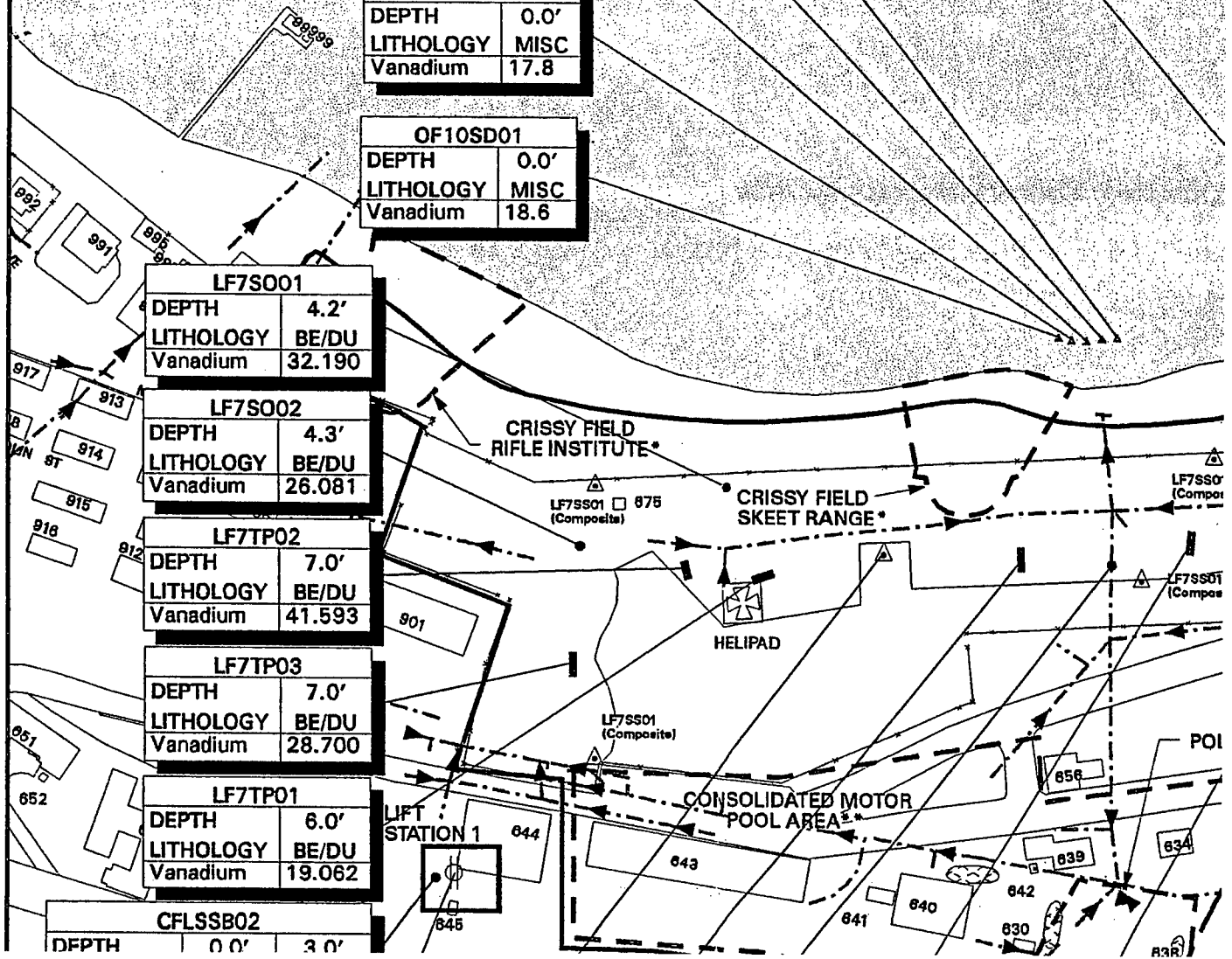
LF7SO02	
DEPTH	4.3'
LITHOLOGY	BE/DU
Vanadium	26.081

LF7TP02	
DEPTH	7.0'
LITHOLOGY	BE/DU
Vanadium	41.593

LF7TP03	
DEPTH	7.0'
LITHOLOGY	BE/DU
Vanadium	28.700

LF7TP01	
DEPTH	6.0'
LITHOLOGY	BE/DU
Vanadium	19.062

CFLSSB02	
DEPTH	0.0' 3.0'





REFCF06	DEPTH	0.0'
	LITHOLOGY	MISC
	Vanadium	22.7

REFCF02	DEPTH	0.0'
	LITHOLOGY	MISC
	Vanadium	17.1

REFCF08	DEPTH	0.0'
	LITHOLOGY	MISC
	Vanadium	22.2

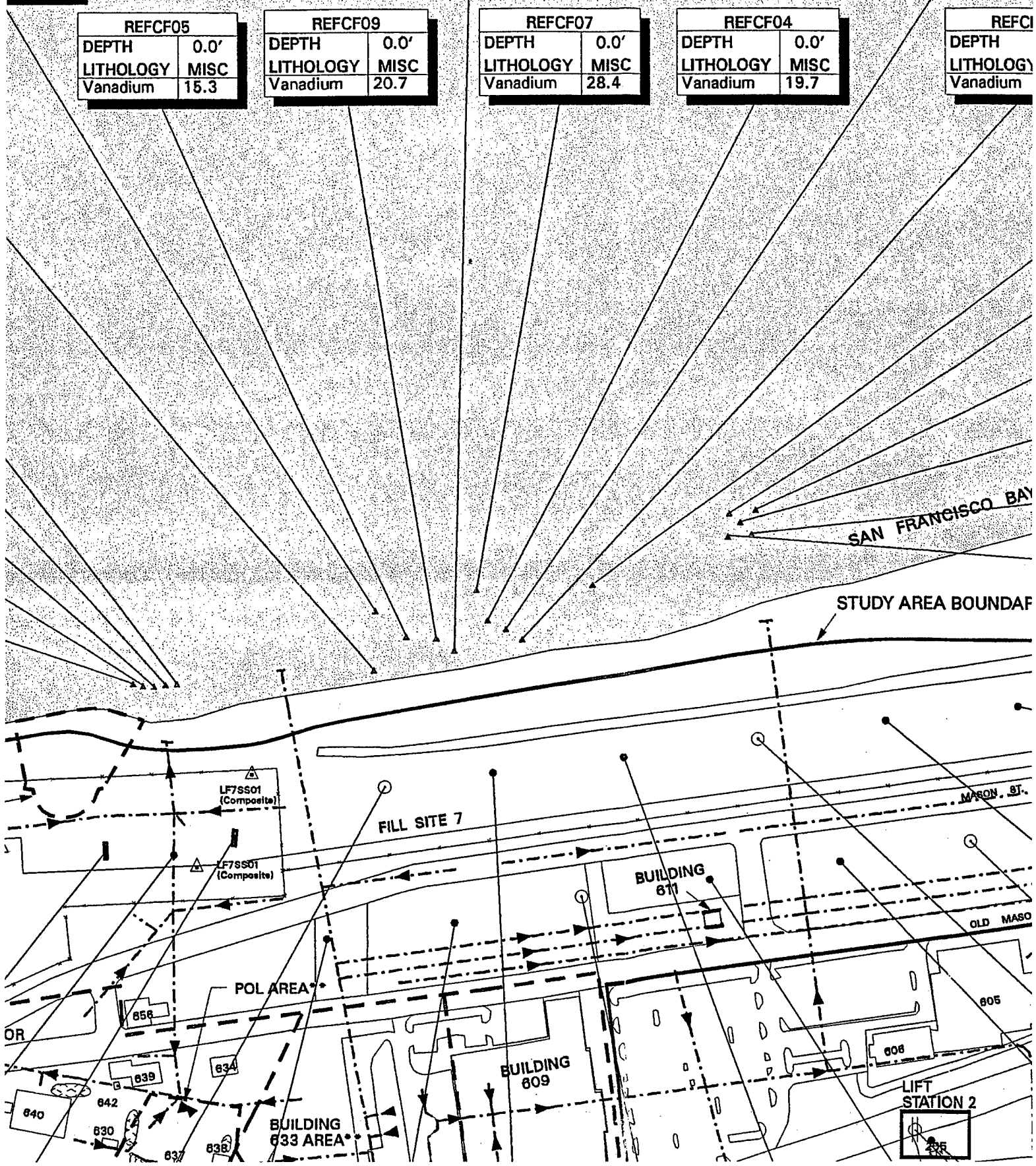
REFCF05	DEPTH	0.0'
	LITHOLOGY	MISC
	Vanadium	15.3

REFCF09	DEPTH	0.0'
	LITHOLOGY	MISC
	Vanadium	20.7

REFCF07	DEPTH	0.0'
	LITHOLOGY	MISC
	Vanadium	28.4

REFCF04	DEPTH	0.0'
	LITHOLOGY	MISC
	Vanadium	19.7

REFCF01	DEPTH	0.0'
	LITHOLOGY	MISC
	Vanadium	





0.0'  
MISC  
2.2

REFCF01	
DEPTH	0.0'
LITHOLOGY	MISC
Vanadium	25.5

REFCF10	
DEPTH	0.0'
LITHOLOGY	MISC
Vanadium	25.2

OF08SD04	
DEPTH	0.0'
LITHOLOGY	MISC
Vanadium	28.9

OF08SD05	
DEPTH	0.0'
LITHOLOGY	MISC
Vanadium	38.6

OF08SD03	
DEPTH	0.0'
LITHOLOGY	MISC
Vanadium	22.9

OF08SD02	
DEPTH	0.0'
LITHOLOGY	MISC
Vanadium	22.2

OF08SD01	
DEPTH	0.0'
LITHOLOGY	MISC
Vanadium	26.9

LF7GW10			
DEPTH	0.7'	2.7'	4.7'
LITHOLOGY	FILL	BE/DU	BE/DU
Vanadium	57.600	18.600	23.100

LF7SB07			
DEPTH	0.2'	2.2'	5.9'
LITHOLOGY	BE/DU	FILL	BE/DU
Vanadium	53.900	49.400	25.100

LF7SB06		
DEPTH	0.6'	2.9'
LITHOLOGY	FILL	BE/DU
Vanadium	87.100	18.700

LF7SB05		
DEPTH	0.6'	2.6'
LITHOLOGY	FILL	BE/DU
Vanadium	28.100	21.600

LF7SB08		
DEPTH	0.5'	2.5'
LITHOLOGY	BE/DU	FILL
Vanadium	60.100	20.300

LF7GW09		
---------	--	--

### EXPLANATION

- ▲ ESAP SEDIMENT SAMPLE
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- SOIL BORING
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- ⊗ SOIL BORING WITH DISCRETE GROUNDWATER SAMPLE
- TEST PIT
- > STORM DRAIN WITH FLOW DIRECTION
- ▨ STAINED AREAS

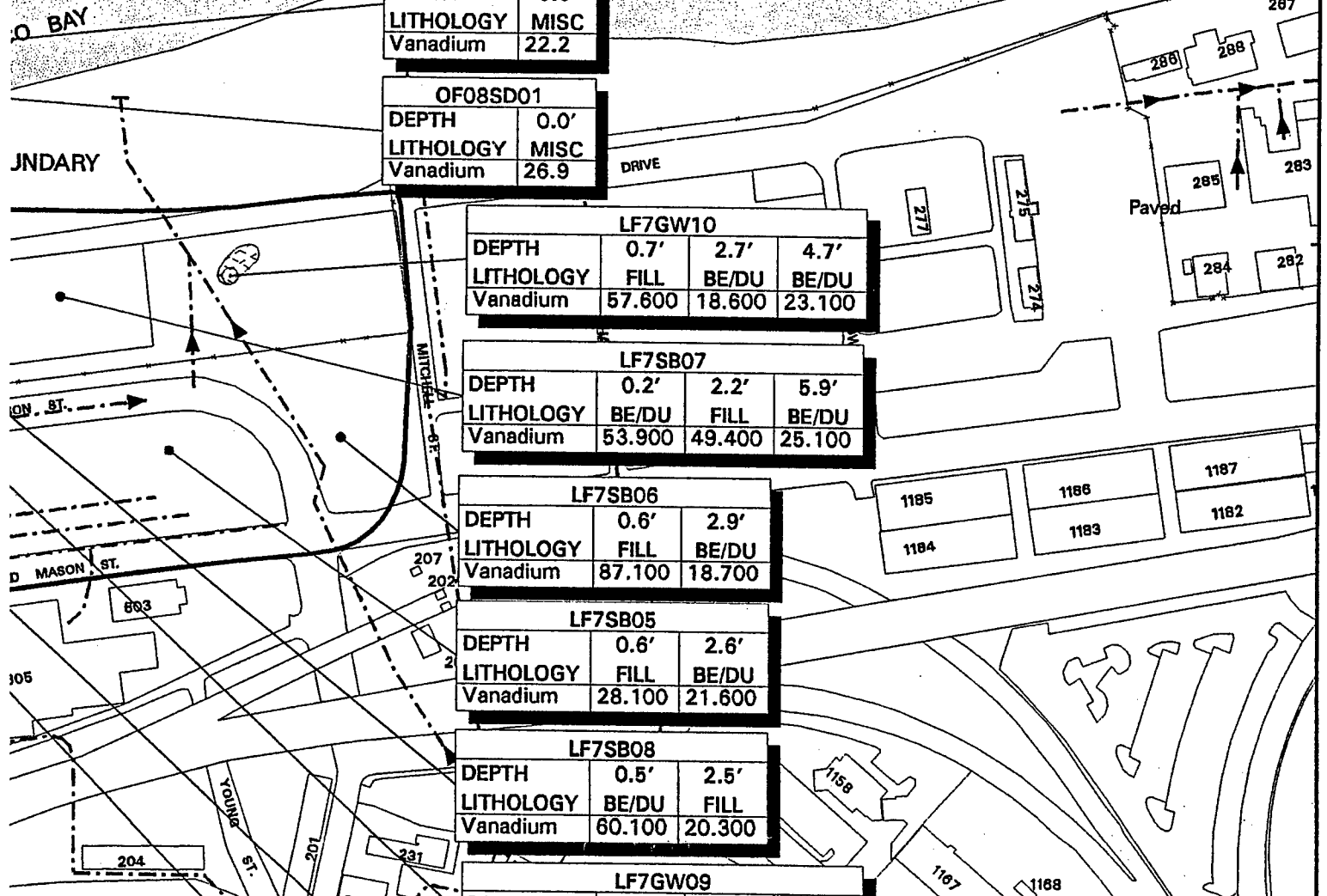
NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. DATA FOR COMPOSITE SAMPLES ARE POSTED AT THE CENTER POINT OF THE COMPOSITE SAMPLE LOCATIONS.

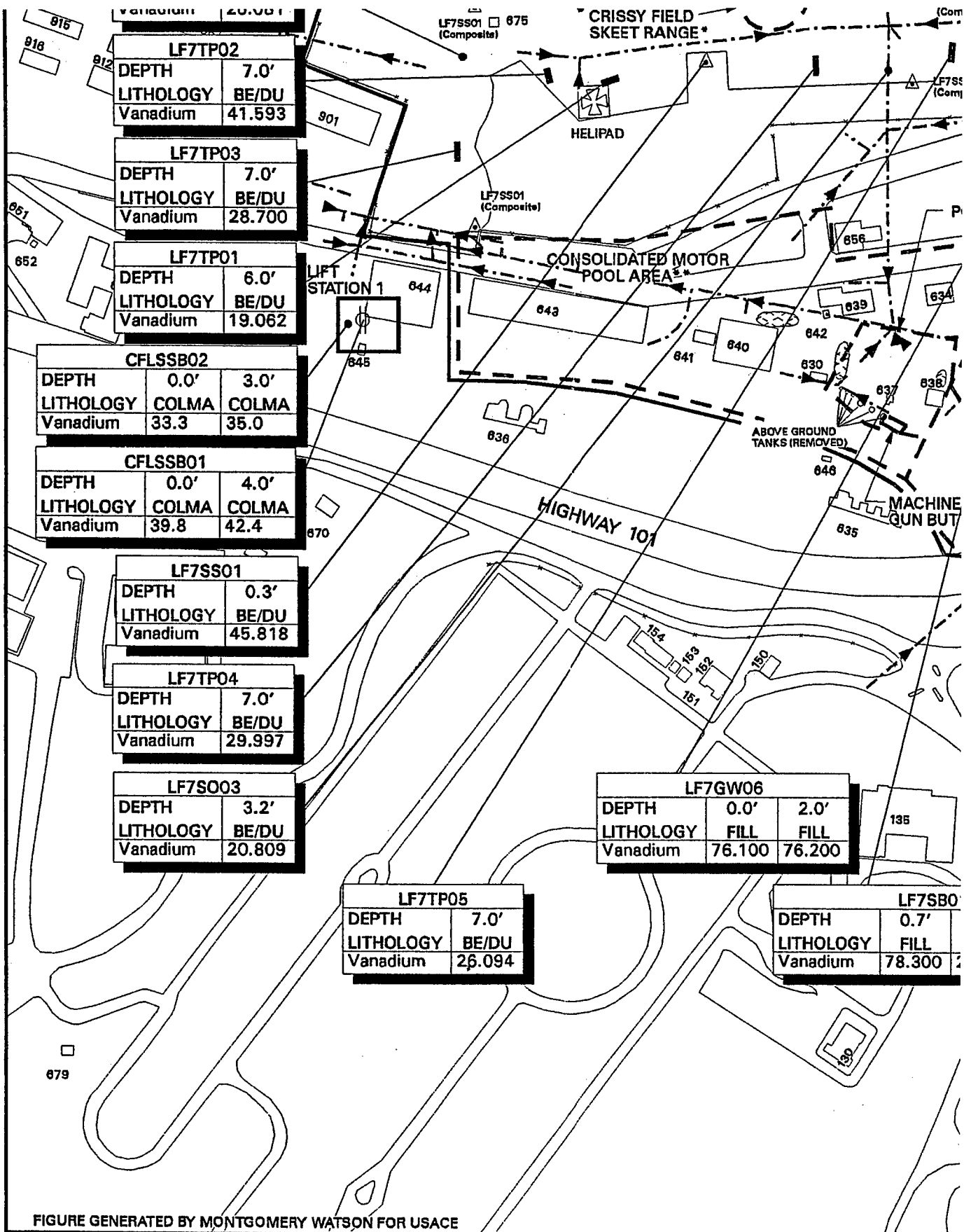
4. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.

5. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.

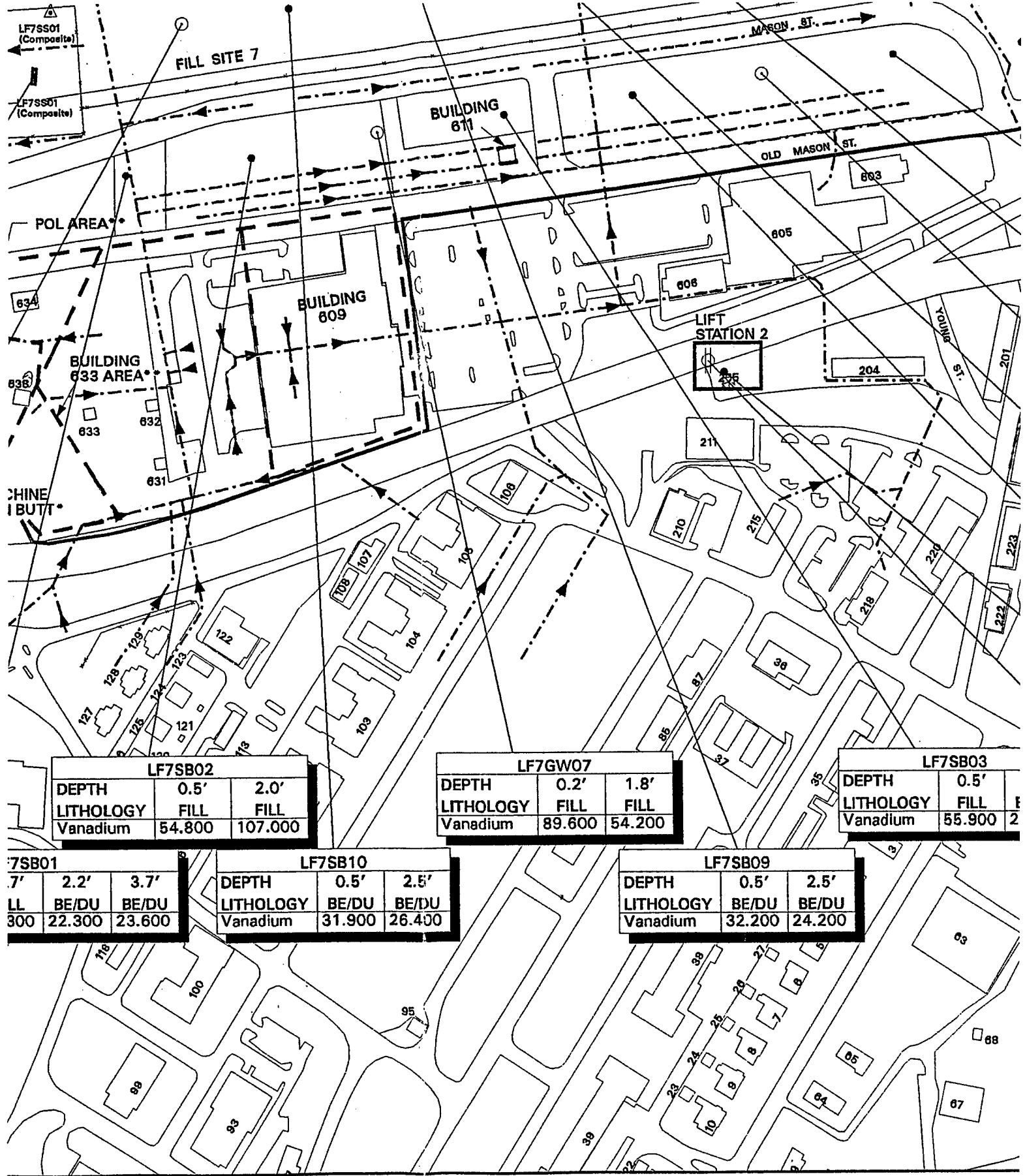




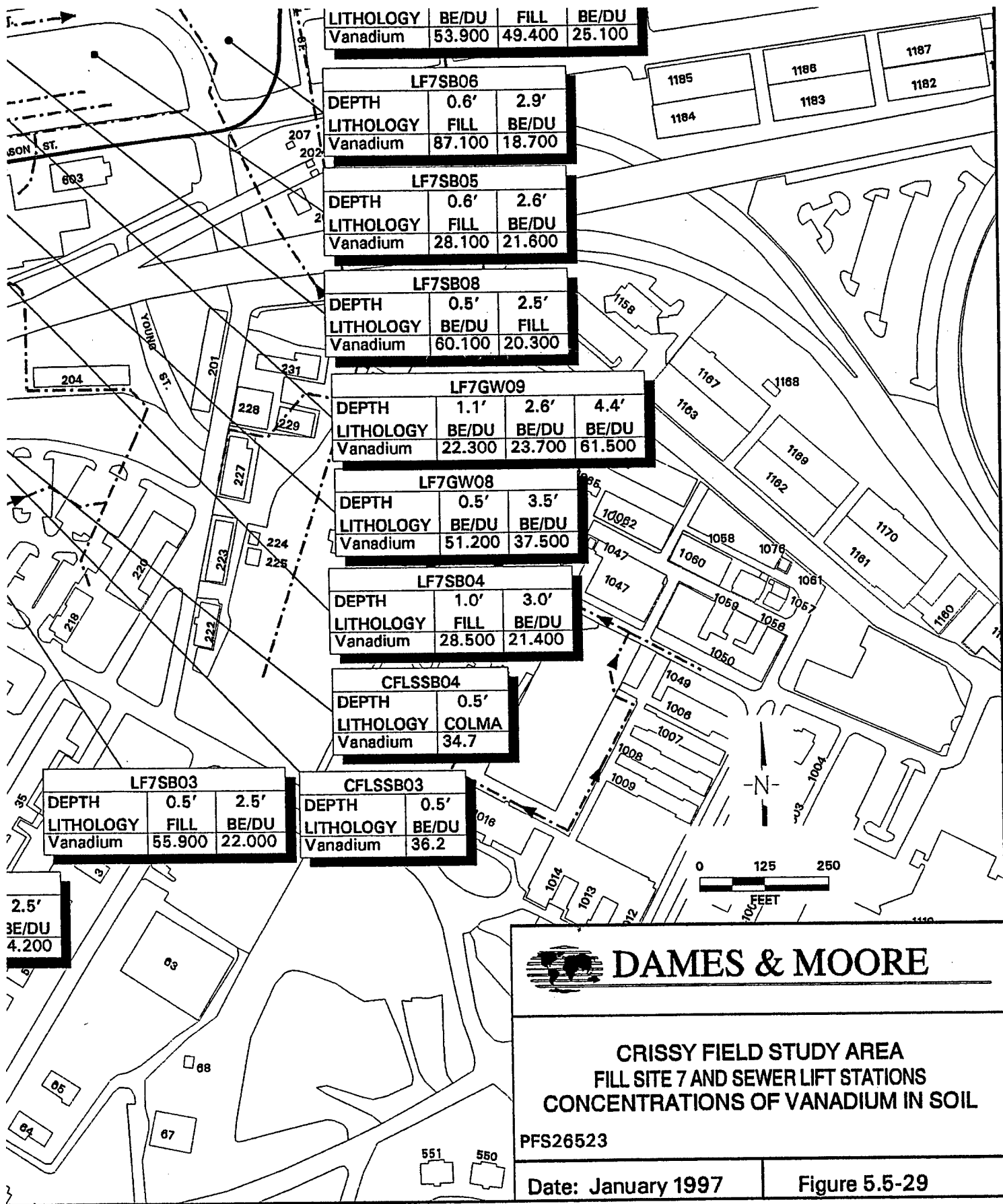
23 Dec 96 12:27:50 Monday, base\_11x17\_v3.xml, plotfile base\_CRISSY2\_S\_20.gpr, 2587











**DAMES & MOORE**

**CRISSY FIELD STUDY AREA  
FILL SITE 7 AND SEWER LIFT STATIONS  
CONCENTRATIONS OF VANADIUM IN SOIL**

PFS26523

Date: January 1997

Figure 5.5-29



REFCF06	
DEPTH	0.0'
LITHOLOGY	MISC
Zinc	32.7

REFCF03	
DEPTH	0.0'
LITHOLOGY	MISC
Zinc	19.8

REFCF05	
DEPTH	0.0'
LITHOLOGY	MISC
Zinc	31.1

OF10SD05	
DEPTH	0.0'
LITHOLOGY	MISC
Zinc	20.4

OF10SD04	
DEPTH	0.0'
LITHOLOGY	MISC
Zinc	19.5

OF10SD03	
DEPTH	0.0'
LITHOLOGY	MISC
Zinc	17.7

OF10SD02	
DEPTH	0.0'
LITHOLOGY	MISC
Zinc	22.6

OF10SD01	
DEPTH	0.0'
LITHOLOGY	MISC
Zinc	23

LF7S001	
DEPTH	4.2'
LITHOLOGY	BE/DU
Zinc	19.525

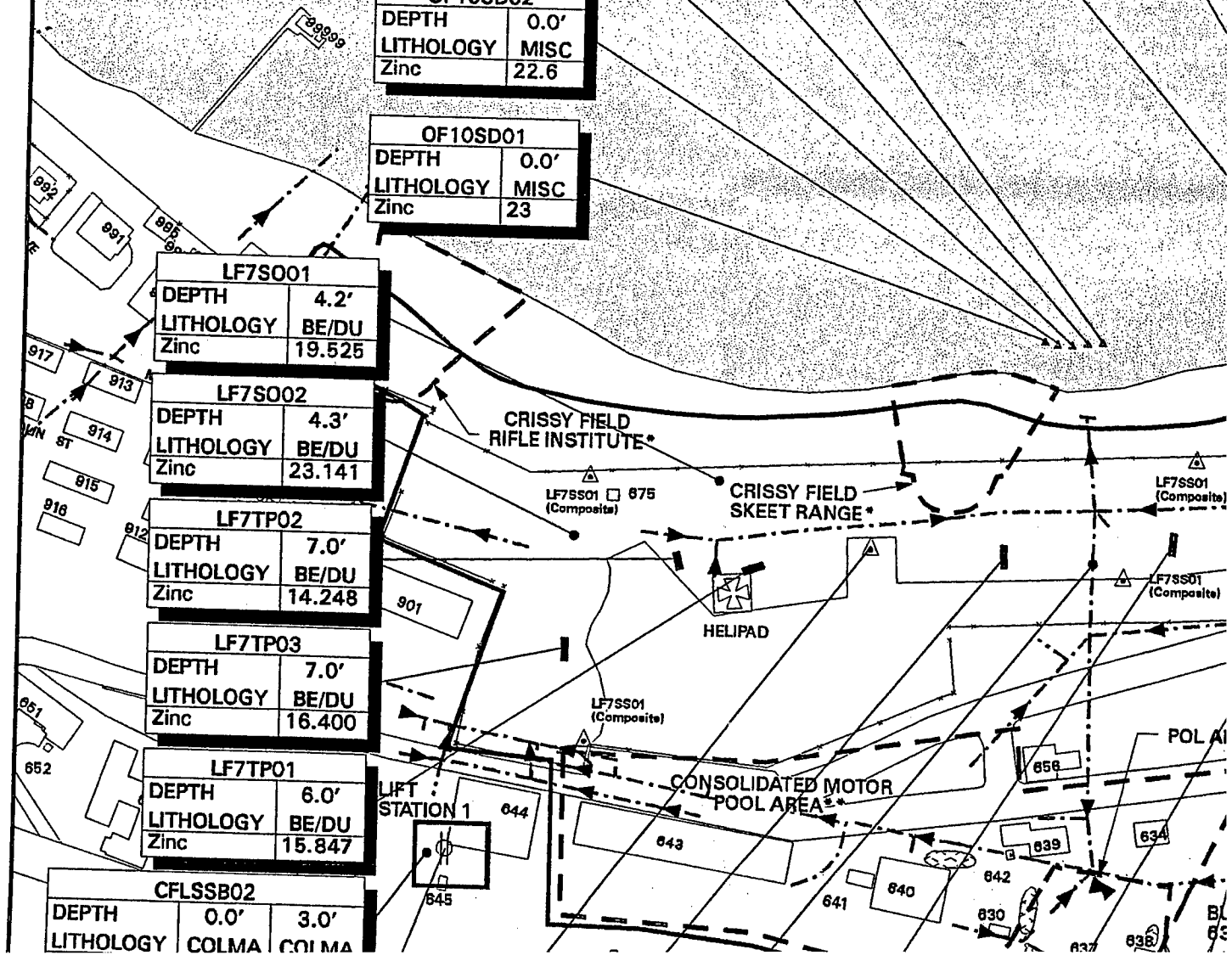
LF7S002	
DEPTH	4.3'
LITHOLOGY	BE/DU
Zinc	23.141

LF7TP02	
DEPTH	7.0'
LITHOLOGY	BE/DU
Zinc	14.248

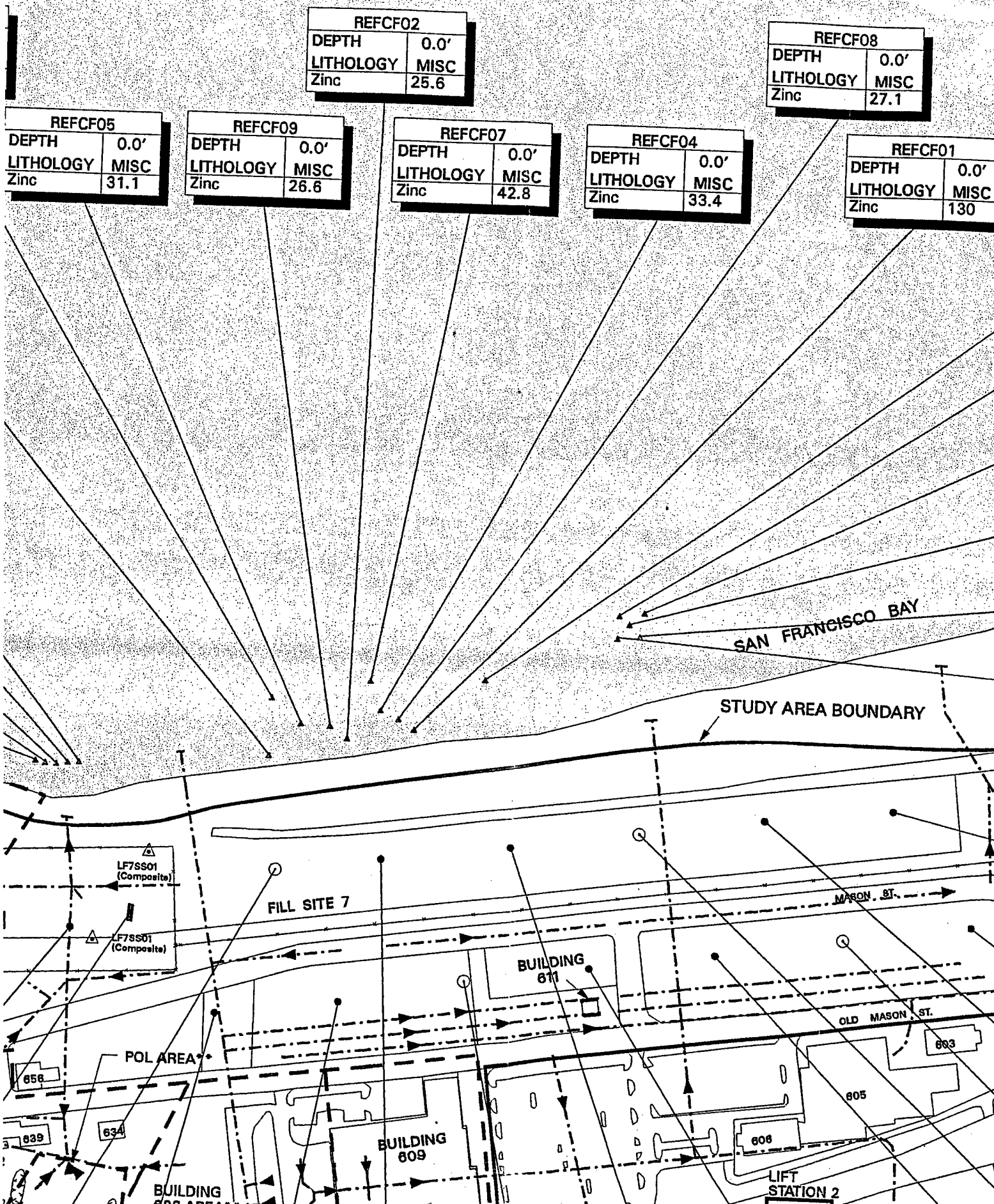
LF7TP03	
DEPTH	7.0'
LITHOLOGY	BE/DU
Zinc	16.400

LF7TP01	
DEPTH	6.0'
LITHOLOGY	BE/DU
Zinc	15.847

CFLSSB02	
DEPTH	0.0' 3.0'
LITHOLOGY	COLMA COLMA









0.0'  
LITHOLOGY  
MISC  
130

REFCF01	
DEPTH	0.0'
LITHOLOGY	MISC
Zinc	130

REFCF10	
DEPTH	0.0'
LITHOLOGY	MISC
Zinc	33.1

OF08SD04	
DEPTH	0.0'
LITHOLOGY	MISC
Zinc	42.9

OF08SD05	
DEPTH	0.0'
LITHOLOGY	MISC
Zinc	69.4

OF08SD03	
DEPTH	0.0'
LITHOLOGY	MISC
Zinc	34.7

OF08SD02	
DEPTH	0.0'
LITHOLOGY	MISC
Zinc	38.8

OF08SD01	
DEPTH	0.0'
LITHOLOGY	MISC
Zinc	44.2

LF7GW10			
DEPTH	0.7'	2.7'	4.7'
LITHOLOGY	FILL	BE/DU	BE/DU
Zinc	64.000	18.100	38.000

LF7SB07			
DEPTH	0.2'	2.2'	5.9'
LITHOLOGY	BE/DU	FILL	BE/DU
Zinc	71.100	123.000	22.500 f

LF7SB06		
DEPTH	0.6'	2.9'
LITHOLOGY	FILL	BE/DU
Zinc	79.600	30.500 f

LF7SB05		
DEPTH	0.6'	2.6'
LITHOLOGY	FILL	BE/DU
Zinc	42.900	27.000

LF7SB08		
DEPTH	0.5'	2.5'
LITHOLOGY	BE/DU	FILL
Zinc	69.100	28.100 f

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- ▨ STAINED AREAS

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4. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.

5. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.

BAY

NDARY

DRIVE

N. ST.

MASON ST.

603

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YOUNG

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Paved

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275

274

1185

1186

1187

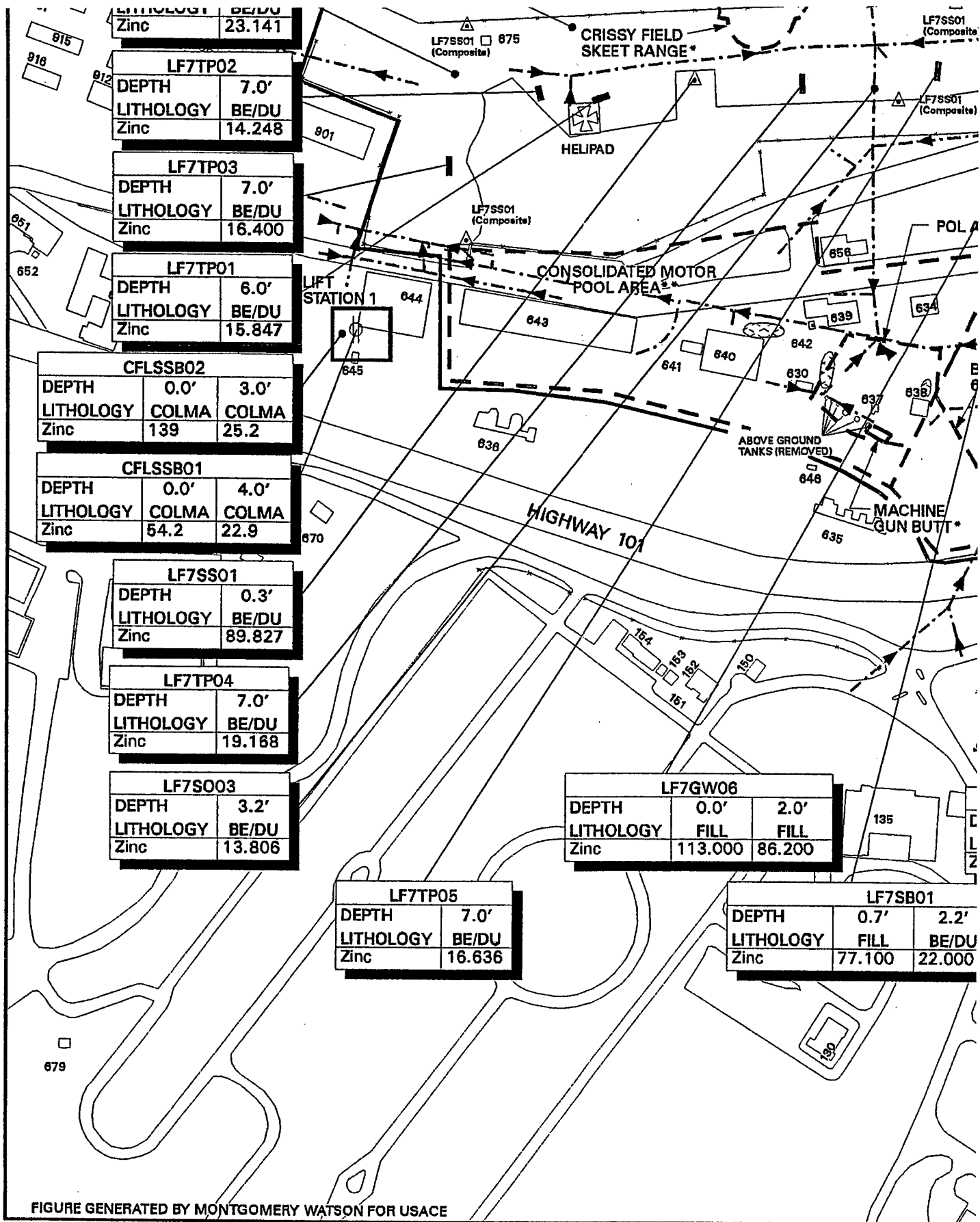
1184

1183

1182

1150





LITHOLOGY	BE/DU
Zinc	23.141

LF7TP02	
DEPTH	7.0'
LITHOLOGY	BE/DU
Zinc	14.248

LF7TP03	
DEPTH	7.0'
LITHOLOGY	BE/DU
Zinc	16.400

LF7TP01	
DEPTH	6.0'
LITHOLOGY	BE/DU
Zinc	15.847

CFLSSB02		
DEPTH	0.0'	3.0'
LITHOLOGY	COLMA	COLMA
Zinc	139	25.2

CFLSSB01		
DEPTH	0.0'	4.0'
LITHOLOGY	COLMA	COLMA
Zinc	54.2	22.9

LF7SS01	
DEPTH	0.3'
LITHOLOGY	BE/DU
Zinc	89.827

LF7TP04	
DEPTH	7.0'
LITHOLOGY	BE/DU
Zinc	19.168

LF7SO03	
DEPTH	3.2'
LITHOLOGY	BE/DU
Zinc	13.806

LF7TP05	
DEPTH	7.0'
LITHOLOGY	BE/DU
Zinc	16.636

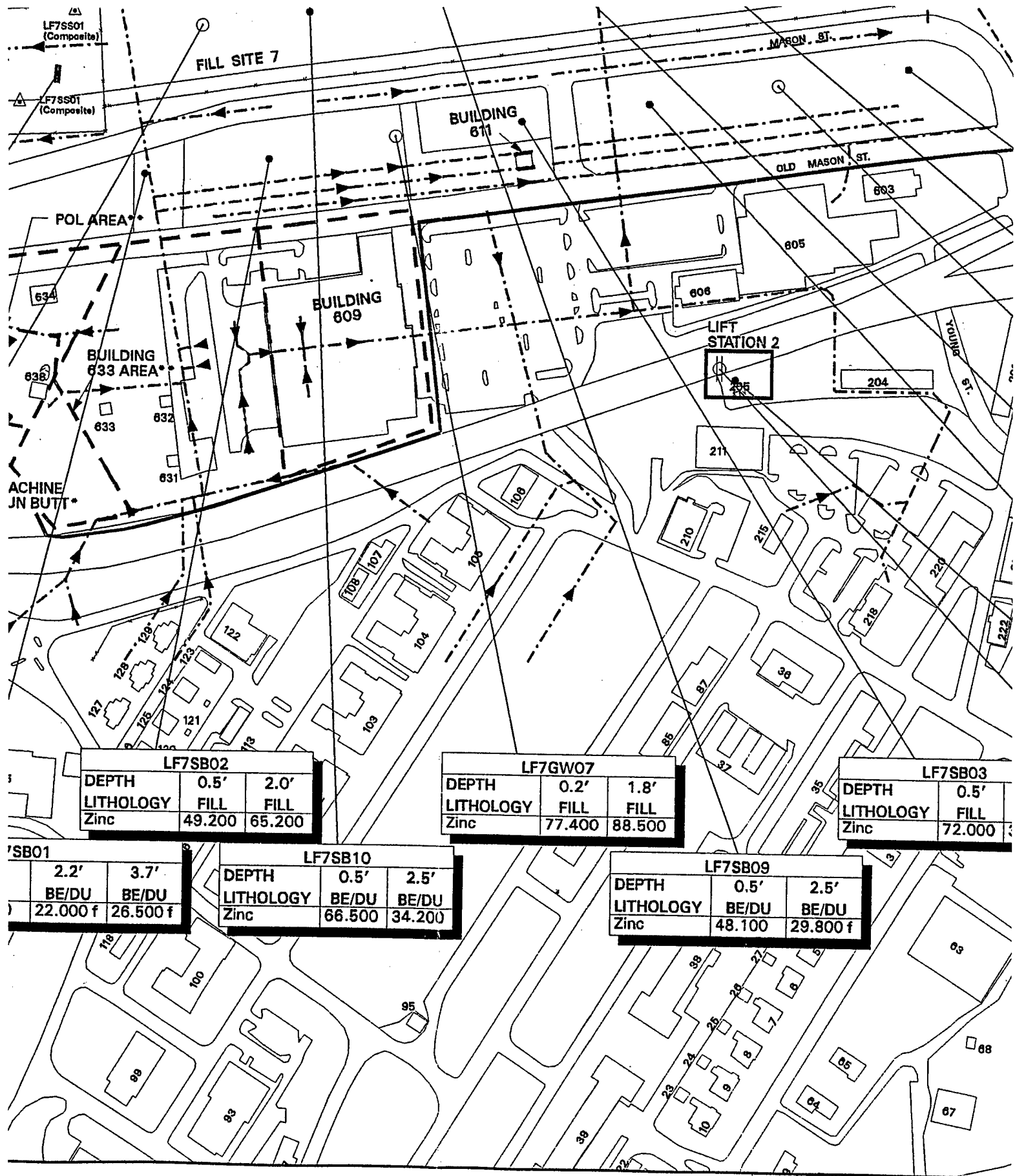
LF7GW06		
DEPTH	0.0'	2.0'
LITHOLOGY	FILL	FILL
Zinc	113.000	86.200

LF7SB01		
DEPTH	0.7'	2.2'
LITHOLOGY	FILL	BE/DU
Zinc	77.100	22.000

23 Dec 96 12:31:16 Monday, base\_11x17\_v3.xml, profile base, CRISST2, S\_21.gm, PDF

FIGURE GENERATED BY MONTGOMERY WATSON FOR USACE





LF7SB02		
DEPTH	0.5'	2.0'
LITHOLOGY	FILL	FILL
Zinc	49.200	65.200

LF7GW07		
DEPTH	0.2'	1.8'
LITHOLOGY	FILL	FILL
Zinc	77.400	88.500

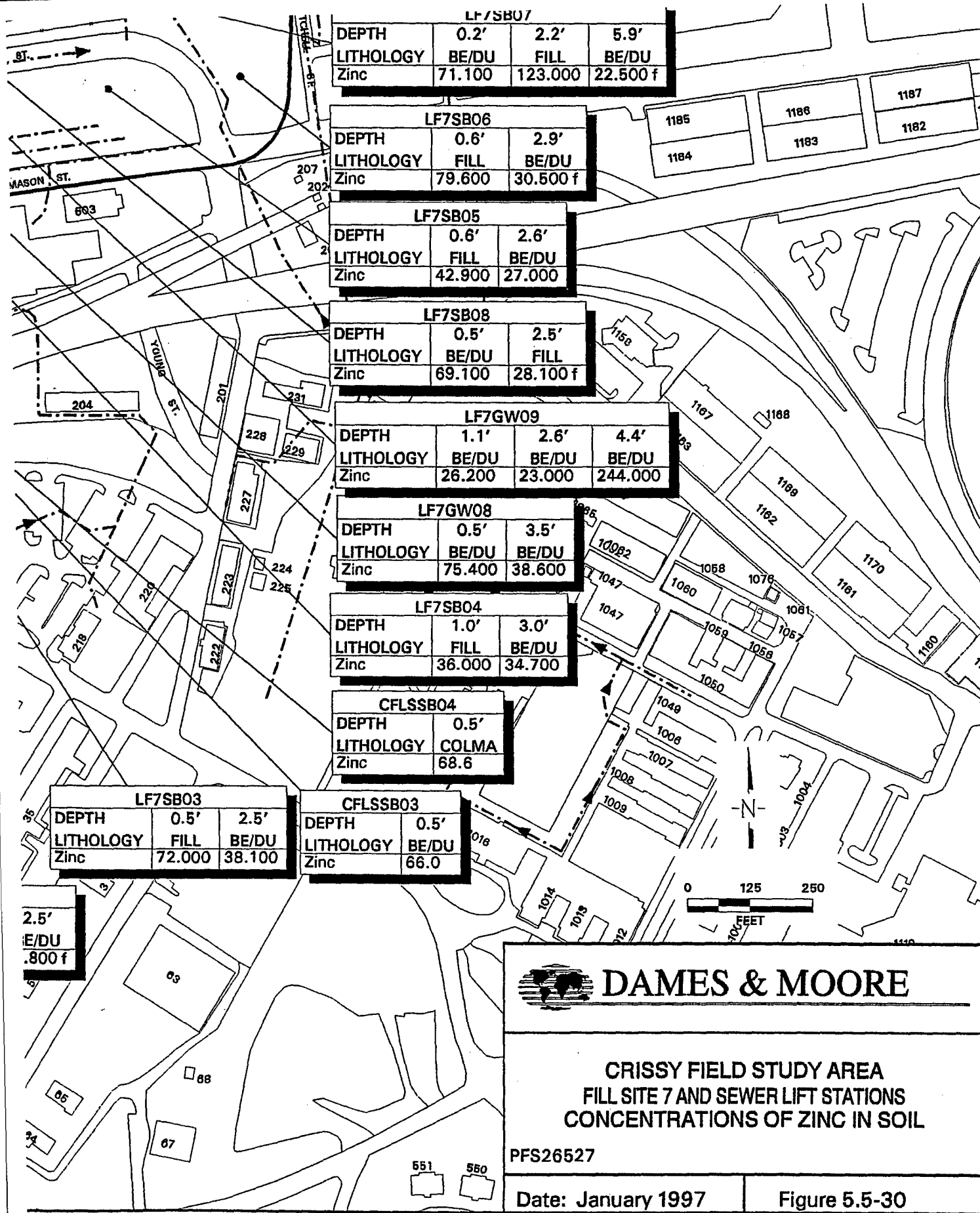
LF7SB03		
DEPTH	0.5'	
LITHOLOGY	FILL	
Zinc	72.000	

'SB01	
2.2'	3.7'
BE/DU	BE/DU
22.000 f	26.500 f

LF7SB10		
DEPTH	0.5'	2.5'
LITHOLOGY	BE/DU	BE/DU
Zinc	66.500	34.200

LF7SB09		
DEPTH	0.5'	2.5'
LITHOLOGY	BE/DU	BE/DU
Zinc	48.100	29.800 f







OF10SD05	
DEPTH	0.0'
Benzo(a)pyrene	<0.062

OF10SD04	
DEPTH	0.0'
Benzo(a)pyrene	<0.062

REFCF03	
DEPTH	0.0'
Benzo(a)pyrene	<0.062

REFCF05	
DEPTH	0.0'
Benzo(a)pyrene	<0.062

OF10SD03	
DEPTH	0.0'
Benzo(a)pyrene	<0.062

REFCF06	
DEPTH	0.0'
Benzo(a)pyrene	0.088

REFCF07	
DEPTH	0.0'
Benzo(a)pyrene	<0.062

OF10SD02	
DEPTH	0.0'
Benzo(a)pyrene	<0.062

OF10SD01	
DEPTH	0.0'
Benzo(a)pyrene	<0.062

LF7SO01	
DEPTH	4.2'
Benzo(a)pyrene	<1.200

LF7SB36	
DEPTH	0.0'
Benzo(a)pyrene	<0.3

LF7SB29	
DEPTH	0.5' 2.0'
Benzo(a)pyrene	0.561 <0.3

LF7SB37	
DEPTH	0.0'
Benzo(a)pyrene	<0.3

LF7SO02	
DEPTH	4.3'
Benzo(a)pyrene	<1.200

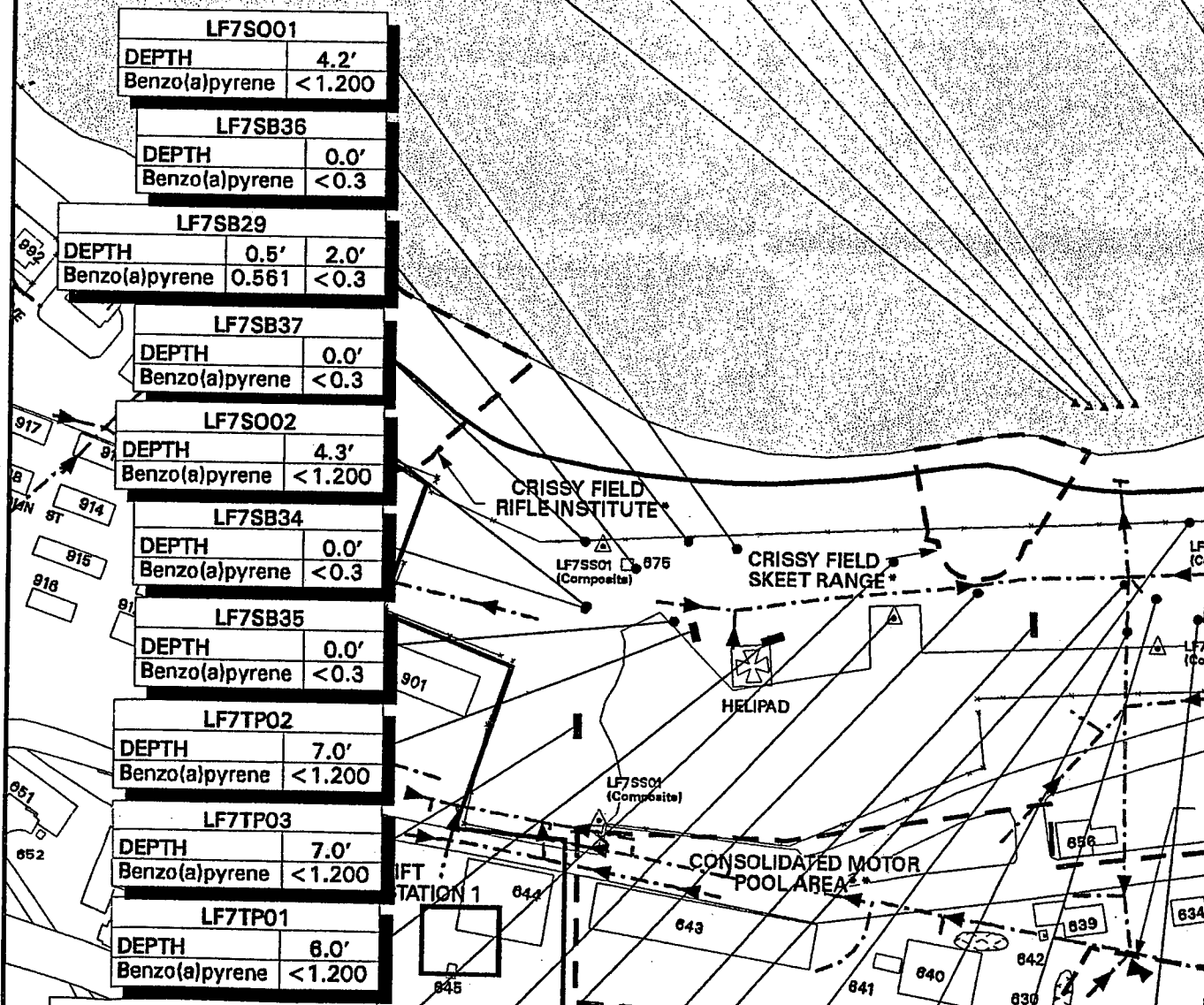
LF7SB34	
DEPTH	0.0'
Benzo(a)pyrene	<0.3

LF7SB35	
DEPTH	0.0'
Benzo(a)pyrene	<0.3

LF7TP02	
DEPTH	7.0'
Benzo(a)pyrene	<1.200

LF7TP03	
DEPTH	7.0'
Benzo(a)pyrene	<1.200

LF7TP01	
DEPTH	6.0'
Benzo(a)pyrene	<1.200





REFCF05	0.0'
Benzo(a)pyrene	< 0.062

REFCF02	0.0'
DEPTH	0.0'
Benzo(a)pyrene	< 0.062

REFCF04	0.0'
DEPTH	0.0'
Benzo(a)pyrene	< 0.062

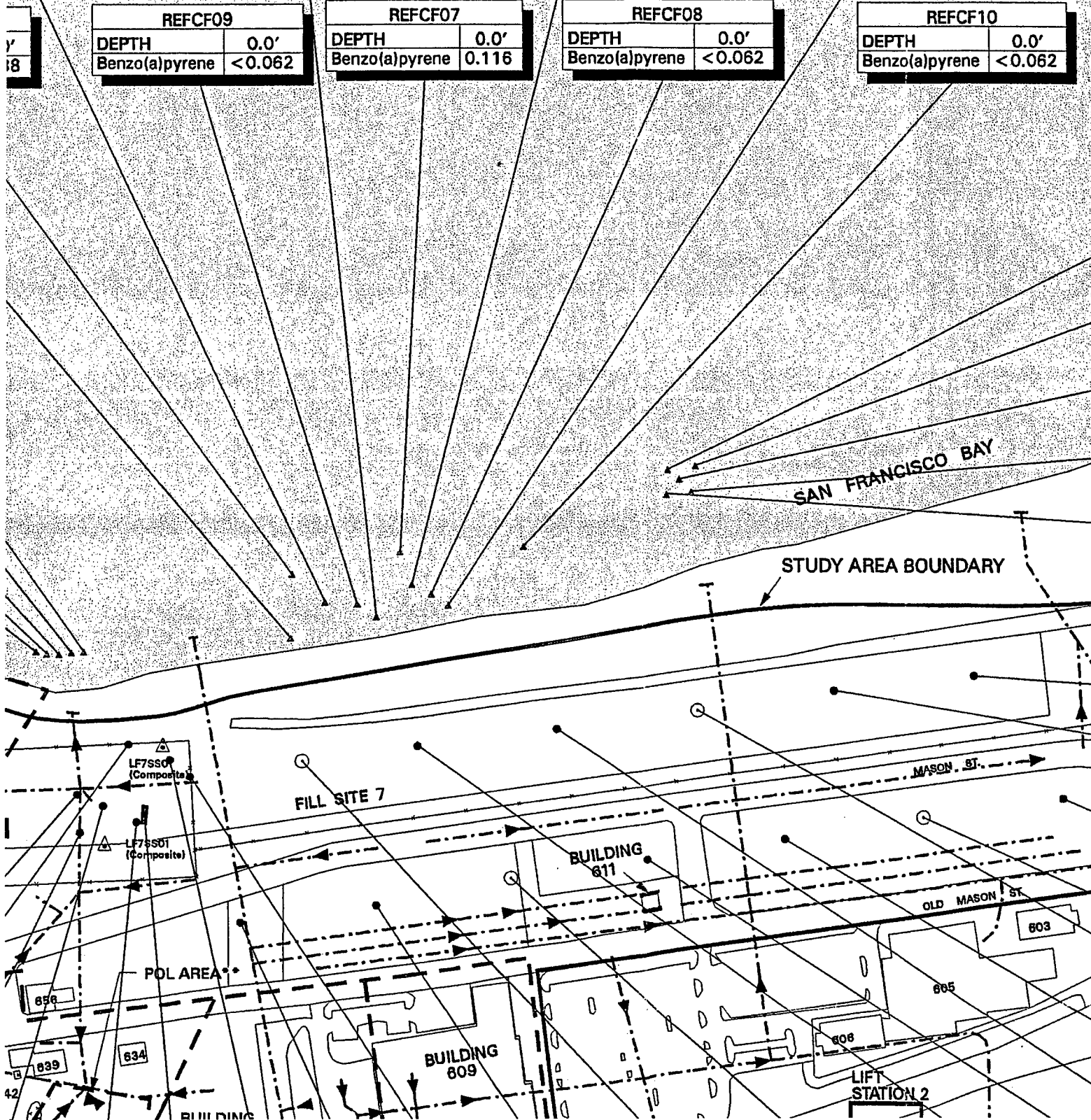
REFCF01	0.0'
DEPTH	0.0'
Benzo(a)pyrene	< 0.062

REFCF09	0.0'
DEPTH	0.0'
Benzo(a)pyrene	< 0.062

REFCF07	0.0'
DEPTH	0.0'
Benzo(a)pyrene	0.116

REFCF08	0.0'
DEPTH	0.0'
Benzo(a)pyrene	< 0.062

REFCF10	0.0'
DEPTH	0.0'
Benzo(a)pyrene	< 0.062





**EXPLANATION**

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NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .

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5. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.

10
0.0'
<0.062

OF08SD04	
DEPTH	0.0'
Benzo(a)pyrene	<0.062

OF08SD05	
DEPTH	0.0'
Benzo(a)pyrene	0.2

OF08SD03	
DEPTH	0.0'
Benzo(a)pyrene	<0.062

OF08SD02	
DEPTH	0.0'
Benzo(a)pyrene	<0.062

OF08SD01	
DEPTH	0.0'
Benzo(a)pyrene	0.119

LF7GW10			
DEPTH	0.7'	2.7'	4.7'
Benzo(a)pyrene	<0.033 e	<0.033 e	<0.033 e

LF7SB07			
DEPTH	0.2'	2.2'	5.9'
Benzo(a)pyrene	0.056	<0.033	<0.033

LF7SB08		
DEPTH	0.5'	2.5'
Benzo(a)pyrene	0.050	<0.033

LF7SB06		
DEPTH	0.6'	2.9'
Benzo(a)pyrene	<0.033	0.350

LF7SB05		
DEPTH	0.6'	2.6'
Benzo(a)pyrene	<0.033	<0.033

LF7GW09			
DEPTH	1.1'	2.6'	4.4'



23 Dec 96 12:34:51 Monday, base\_11s17\_v3.aml, profile base, CRISSY2, S\_34.gen, P3F

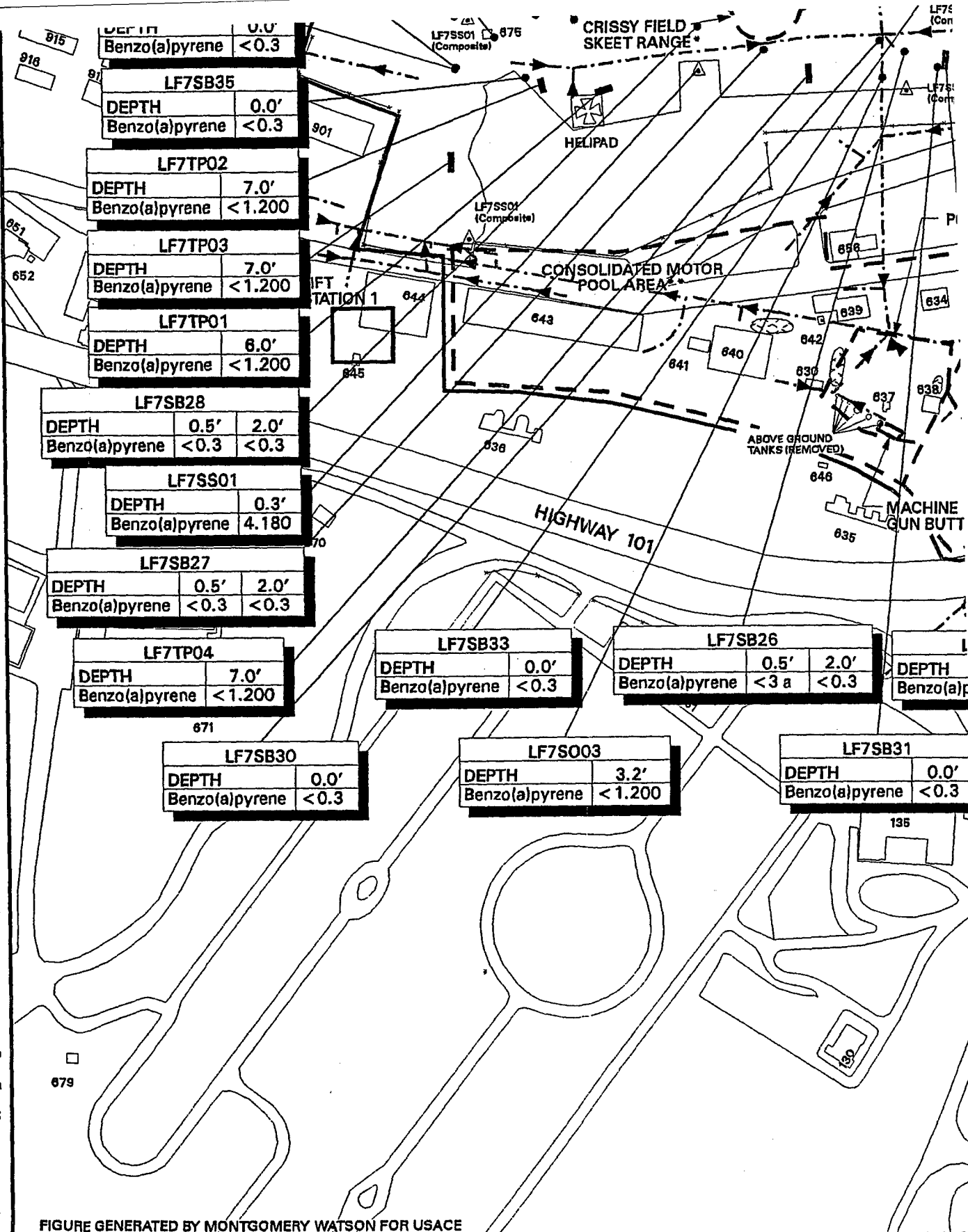
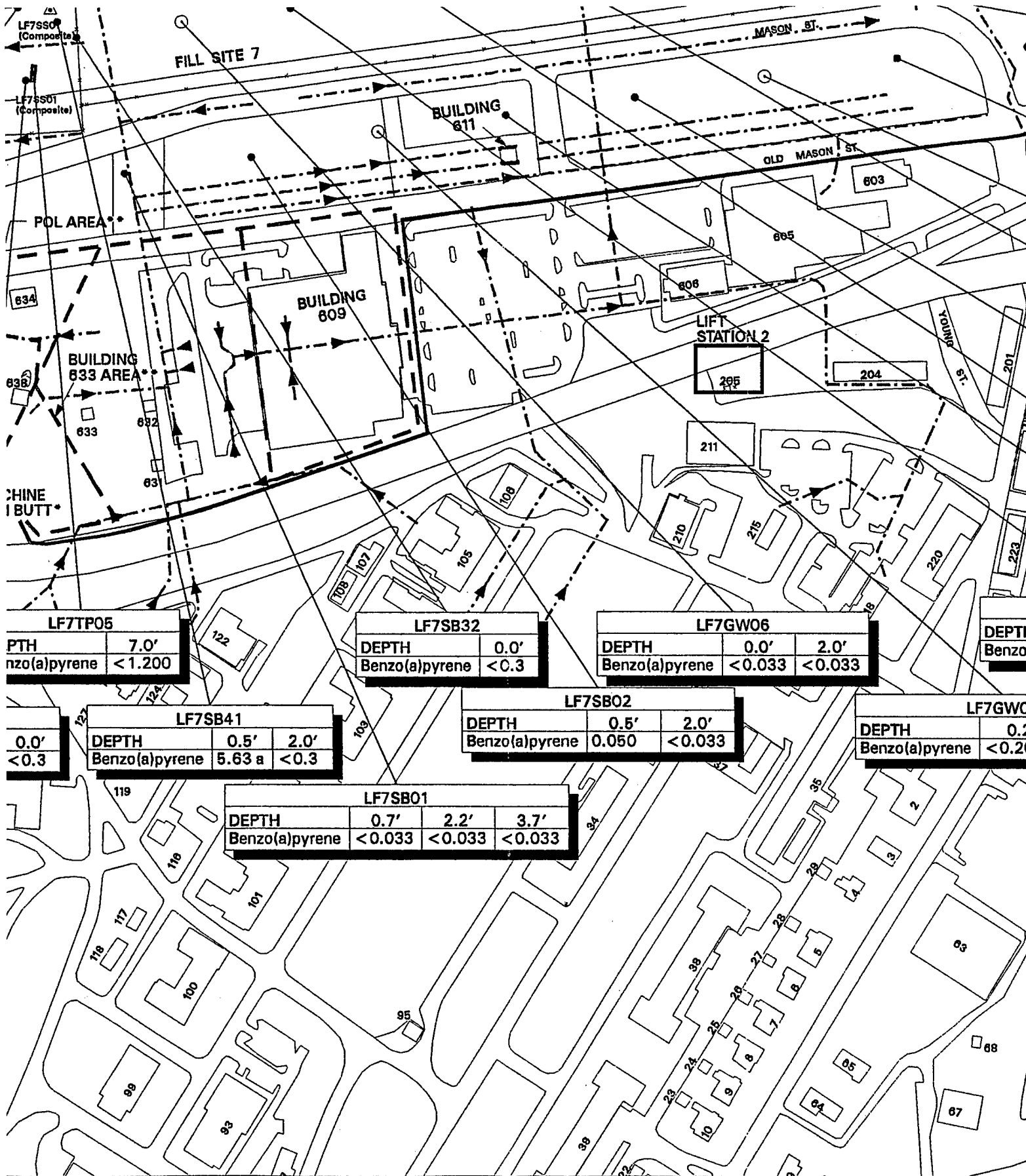
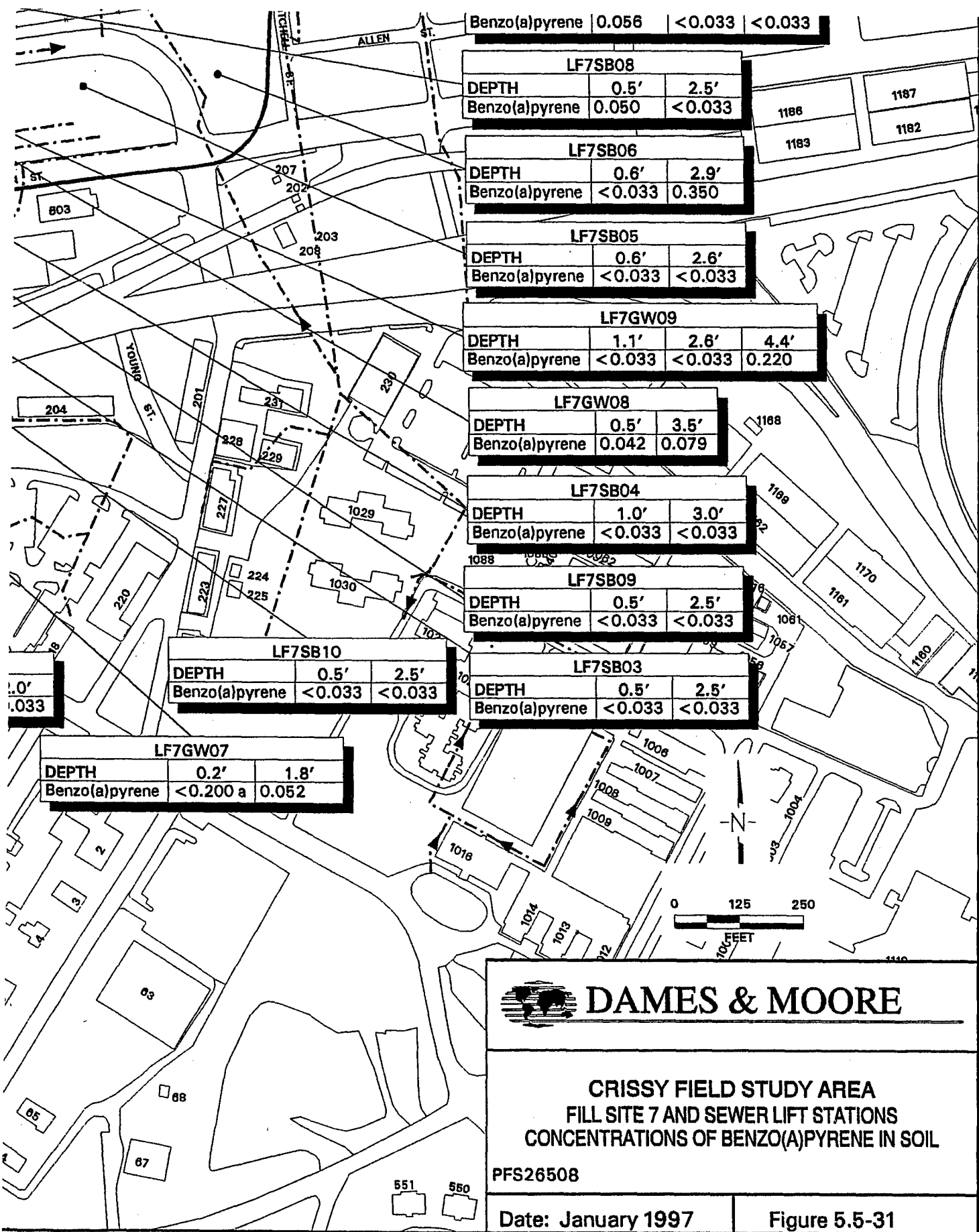


FIGURE GENERATED BY MONTGOMERY WATSON FOR USACE

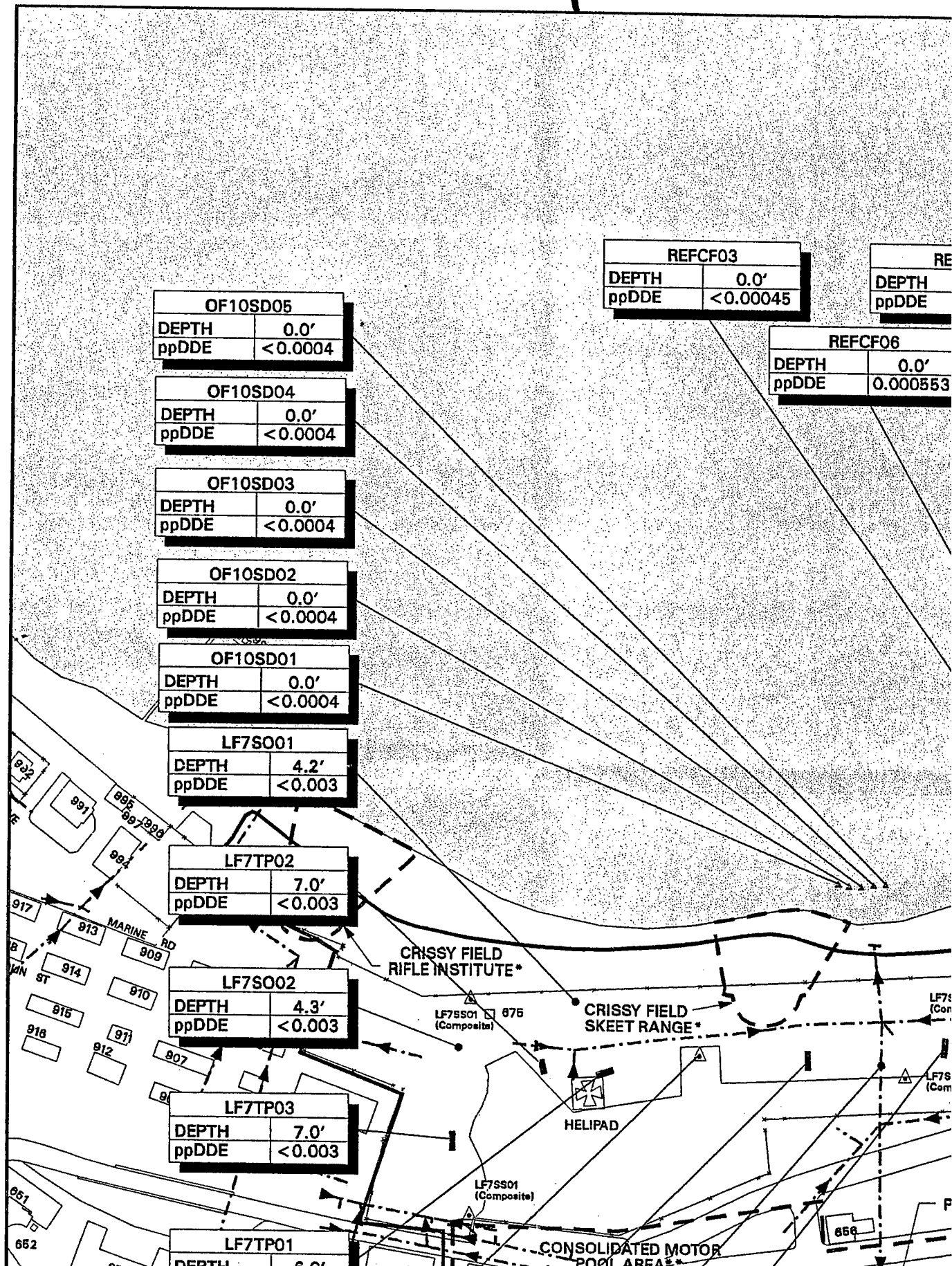












OF10SD05	
DEPTH	0.0'
ppDDE	<0.0004

OF10SD04	
DEPTH	0.0'
ppDDE	<0.0004

OF10SD03	
DEPTH	0.0'
ppDDE	<0.0004

OF10SD02	
DEPTH	0.0'
ppDDE	<0.0004

OF10SD01	
DEPTH	0.0'
ppDDE	<0.0004

LF7SO01	
DEPTH	4.2'
ppDDE	<0.003

LF7TP02	
DEPTH	7.0'
ppDDE	<0.003

LF7SO02	
DEPTH	4.3'
ppDDE	<0.003

LF7TP03	
DEPTH	7.0'
ppDDE	<0.003

LF7TP01	
DEPTH	6.0'
ppDDE	<0.003

REFCF03	
DEPTH	0.0'
ppDDE	<0.00045

REFCF06	
DEPTH	0.0'
ppDDE	0.000553

REFCF05	
DEPTH	0.0'
ppDDE	<0.00045

CRISSY FIELD RIFLE INSTITUTE\*

CRISSY FIELD SKEET RANGE\*

HELIPAD

CONSOLIDATED MOTOR POOL AREA\*



REFCF05	
DEPTH	0.0'
ppDDE	< 0.00045

REFCF02	
DEPTH	0.0'
ppDDE	< 0.00045

REFCF04	
DEPTH	0.0'
ppDDE	< 0.00045

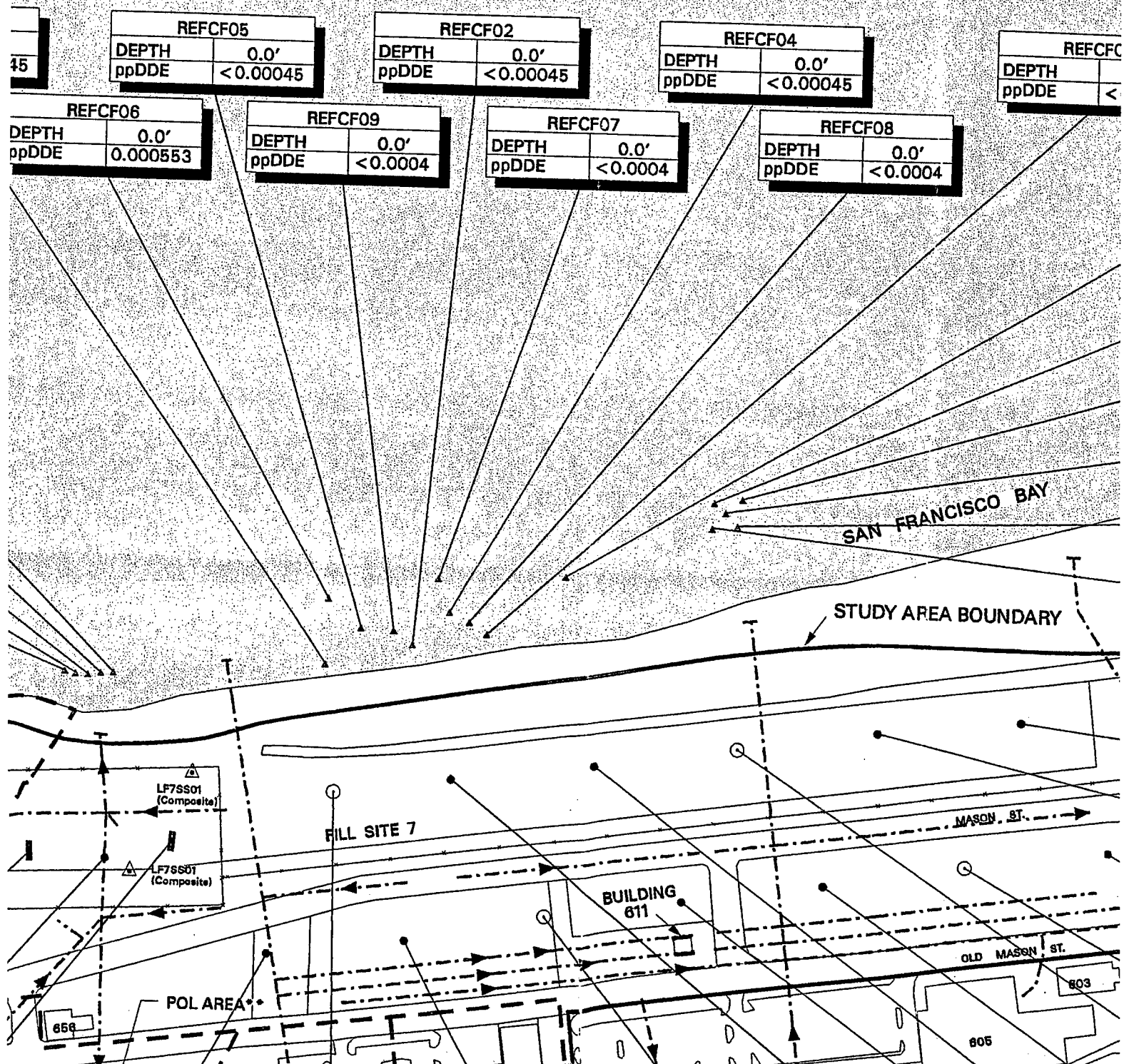
REFCF01	
DEPTH	0.0'
ppDDE	< 0.00045

REFCF06	
DEPTH	0.0'
ppDDE	0.000553

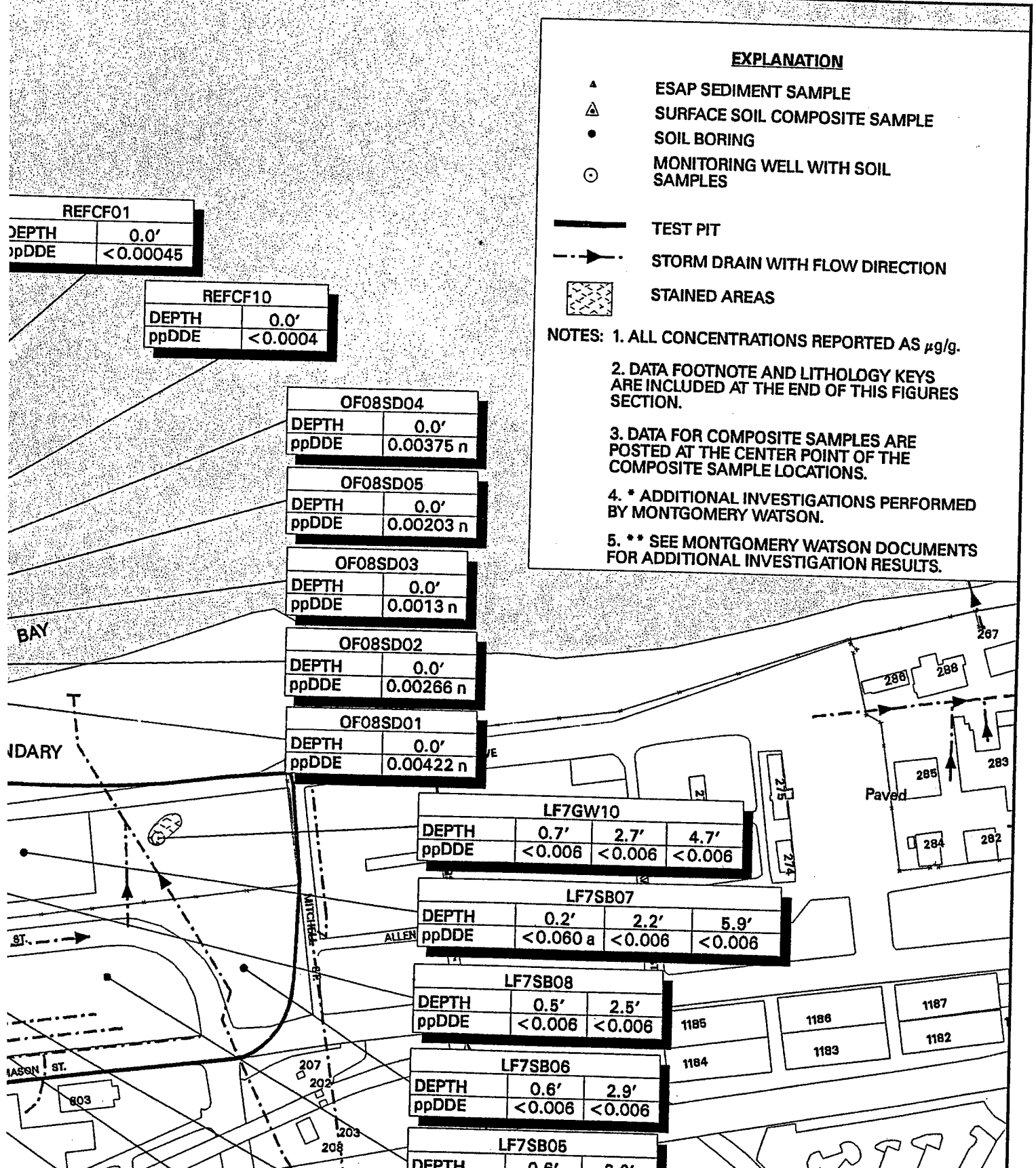
REFCF09	
DEPTH	0.0'
ppDDE	< 0.0004

REFCF07	
DEPTH	0.0'
ppDDE	< 0.0004

REFCF08	
DEPTH	0.0'
ppDDE	< 0.0004









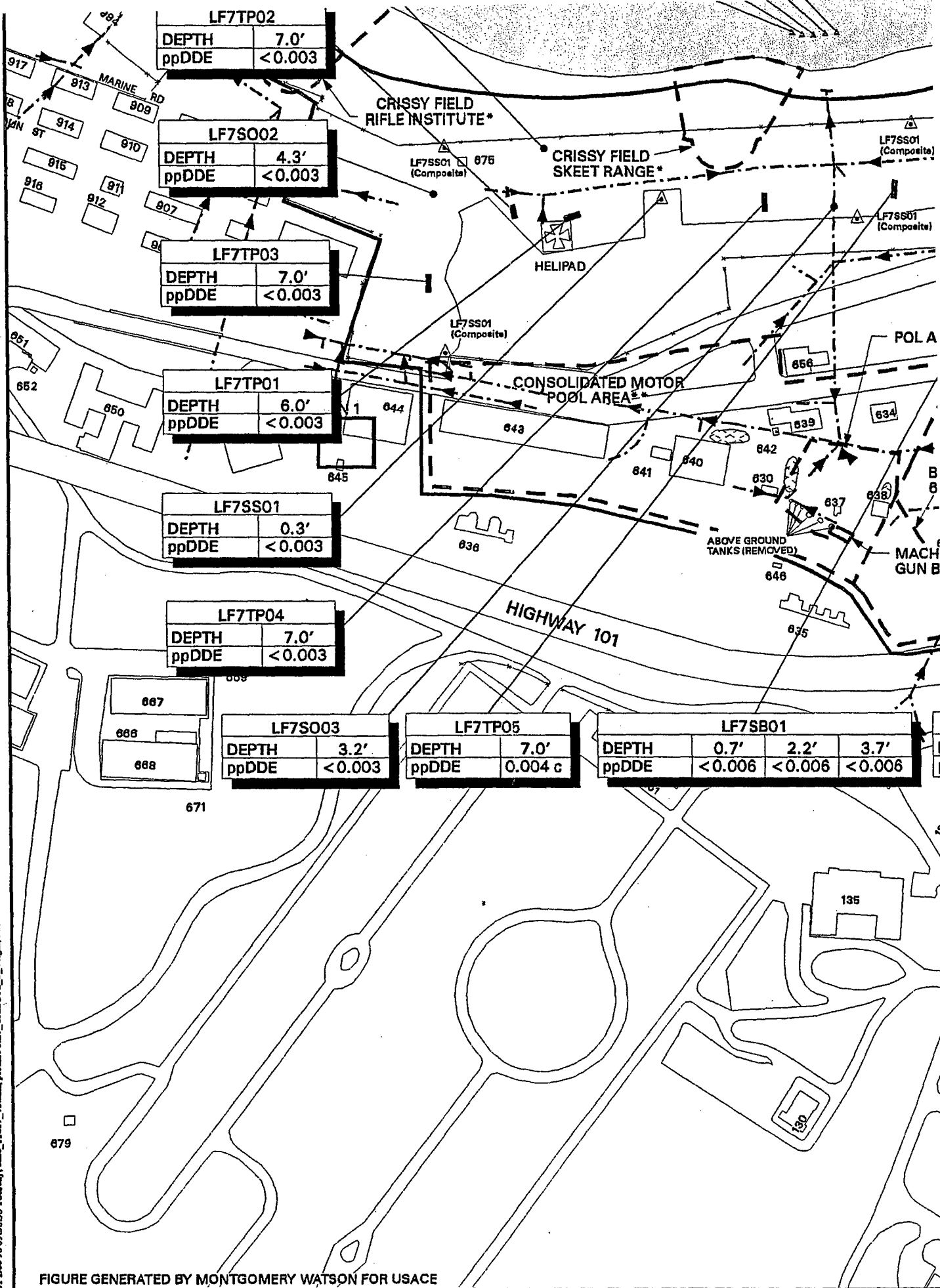
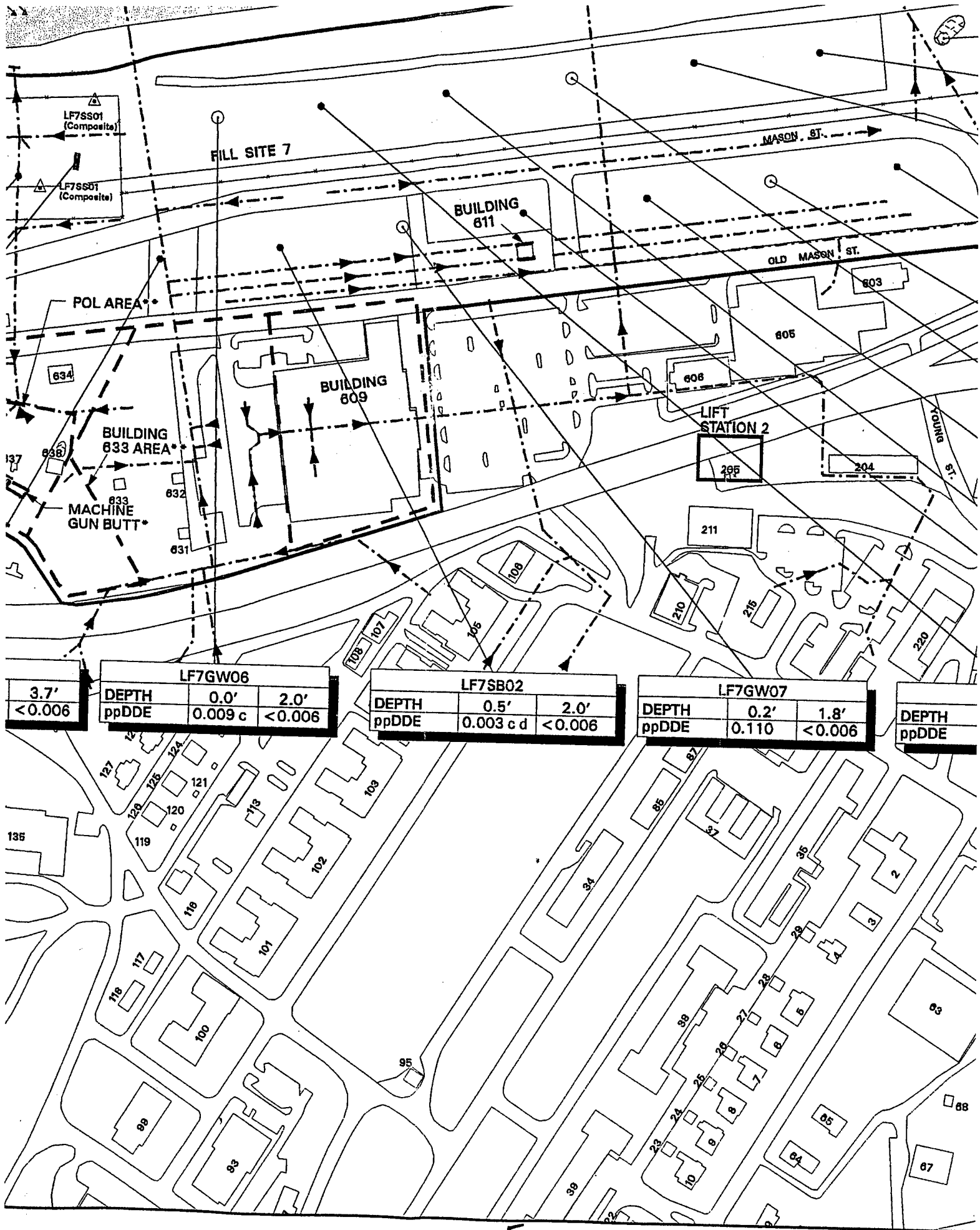


FIGURE GENERATED BY MONTGOMERY WATSON FOR USACE





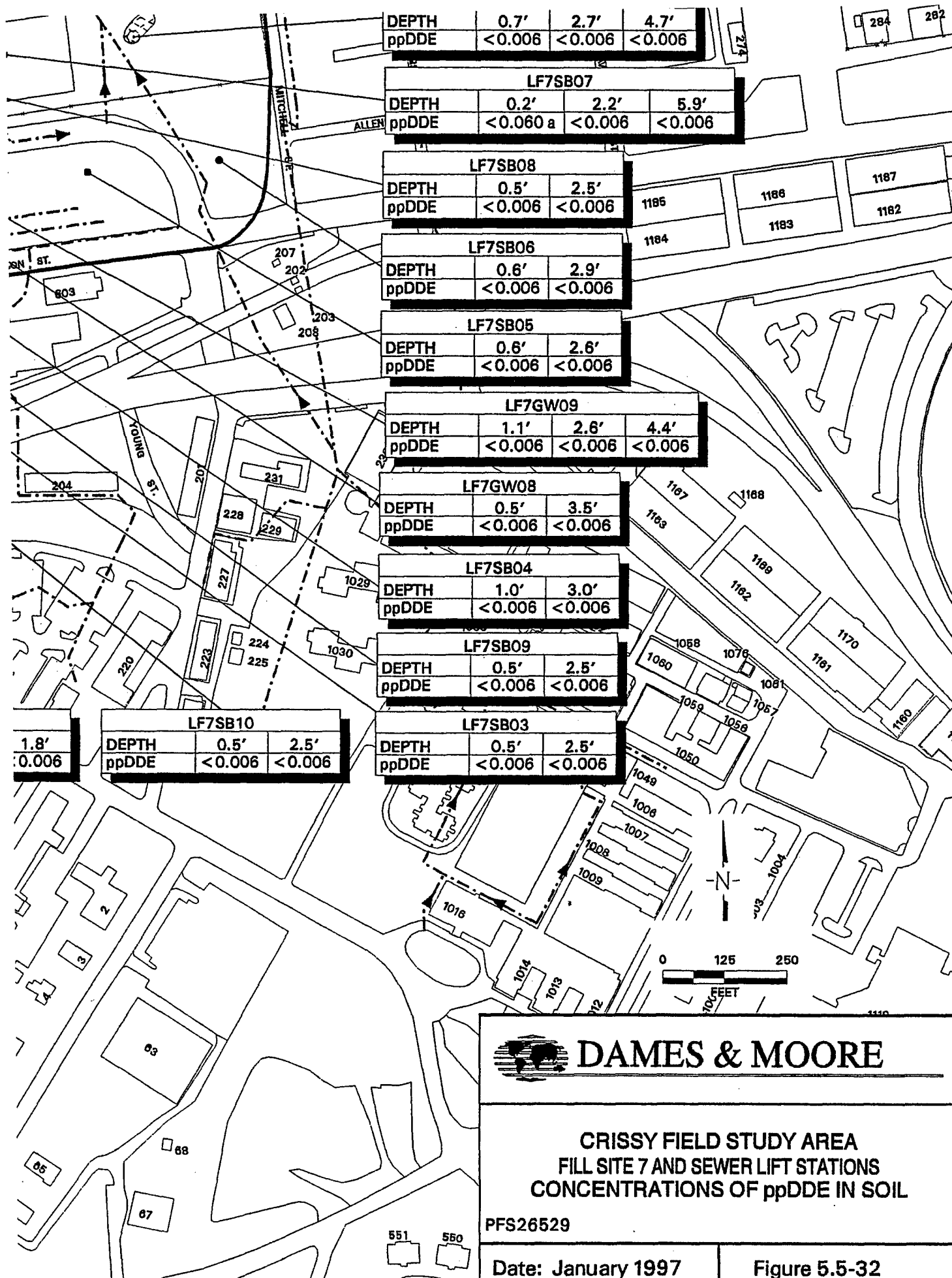
LF7GW06			
3.7'	DEPTH	0.0'	2.0'
<0.006	ppDDE	0.009 c	<0.006

LF7SB02			
0.5'	DEPTH	0.5'	2.0'
0.003 c d	ppDDE	<0.006	

LF7GW07			
0.2'	DEPTH	0.2'	1.8'
0.110	ppDDE	<0.006	

DEPTH	
ppDDE	







REFCF03	
DEPTH	0.0'
ppDDT	<0.00035

REFCF05	
DEPTH	0.0'
ppDDT	<0.0003

REFCF06	
DEPTH	0.0'
ppDDT	<0.0003

OF10SD05	
DEPTH	0.0'
ppDDT	<0.0003

OF10SD04	
DEPTH	0.0'
ppDDT	<0.0003

OF10SD03	
DEPTH	0.0'
ppDDT	<0.0003

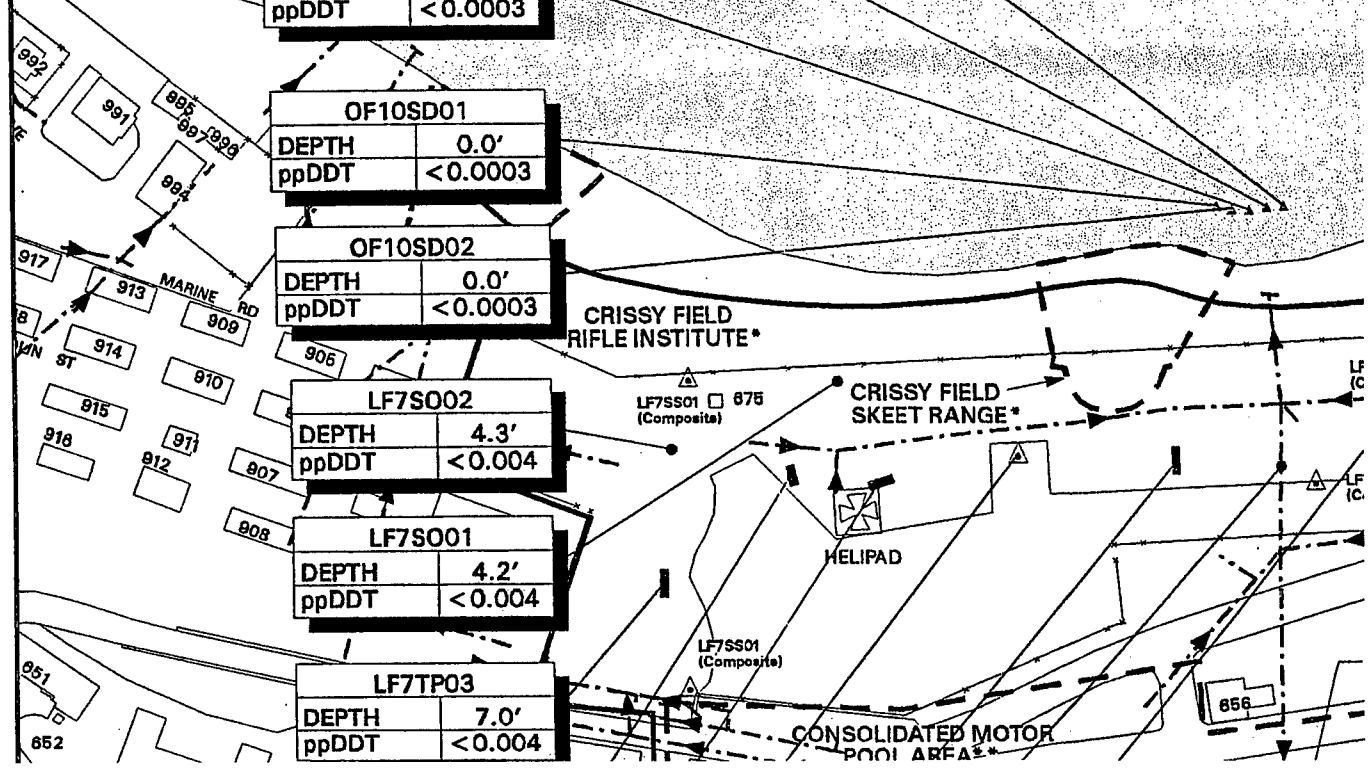
OF10SD01	
DEPTH	0.0'
ppDDT	<0.0003

OF10SD02	
DEPTH	0.0'
ppDDT	<0.0003

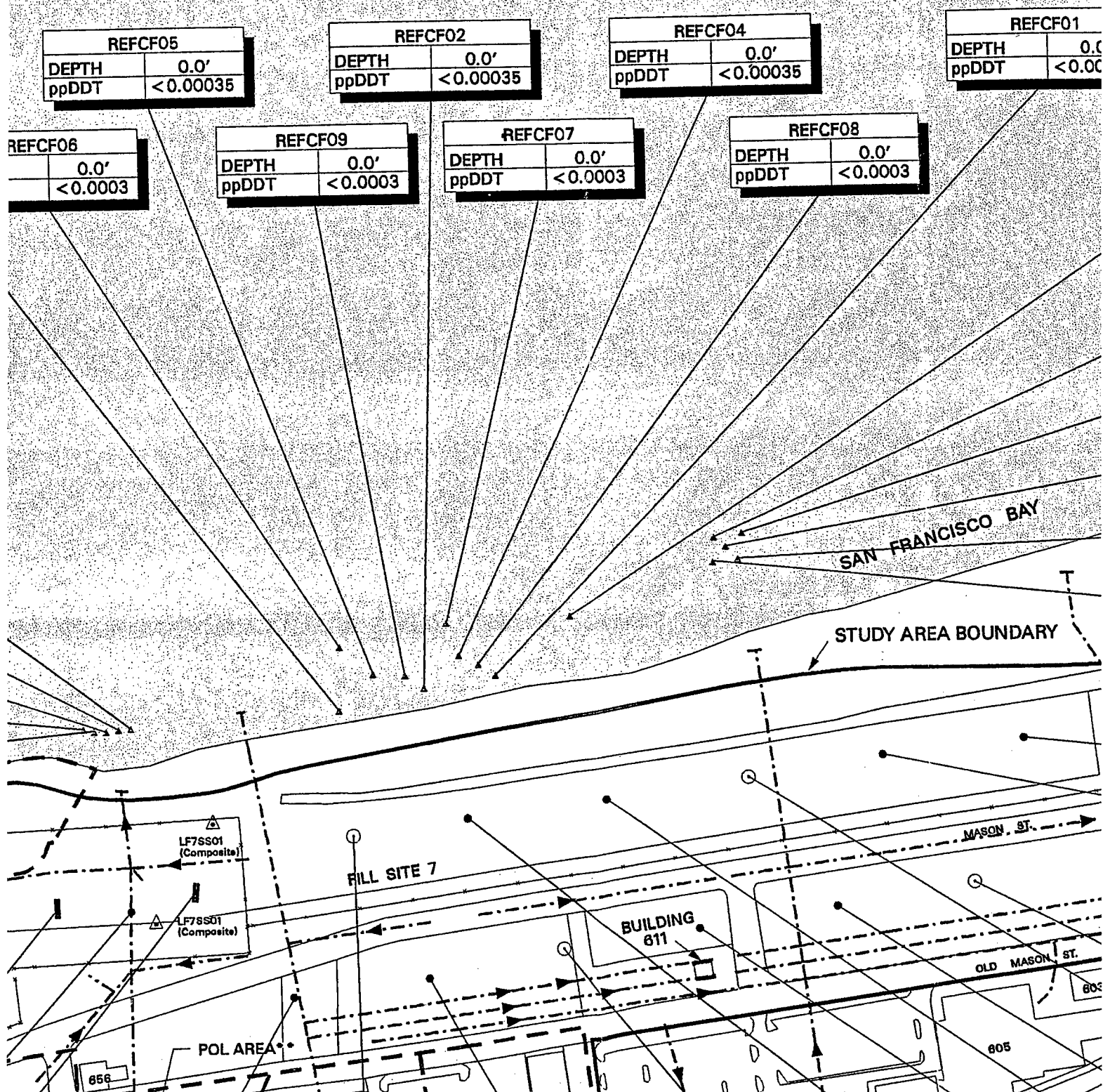
LF7SO02	
DEPTH	4.3'
ppDDT	<0.004

LF7SO01	
DEPTH	4.2'
ppDDT	<0.004

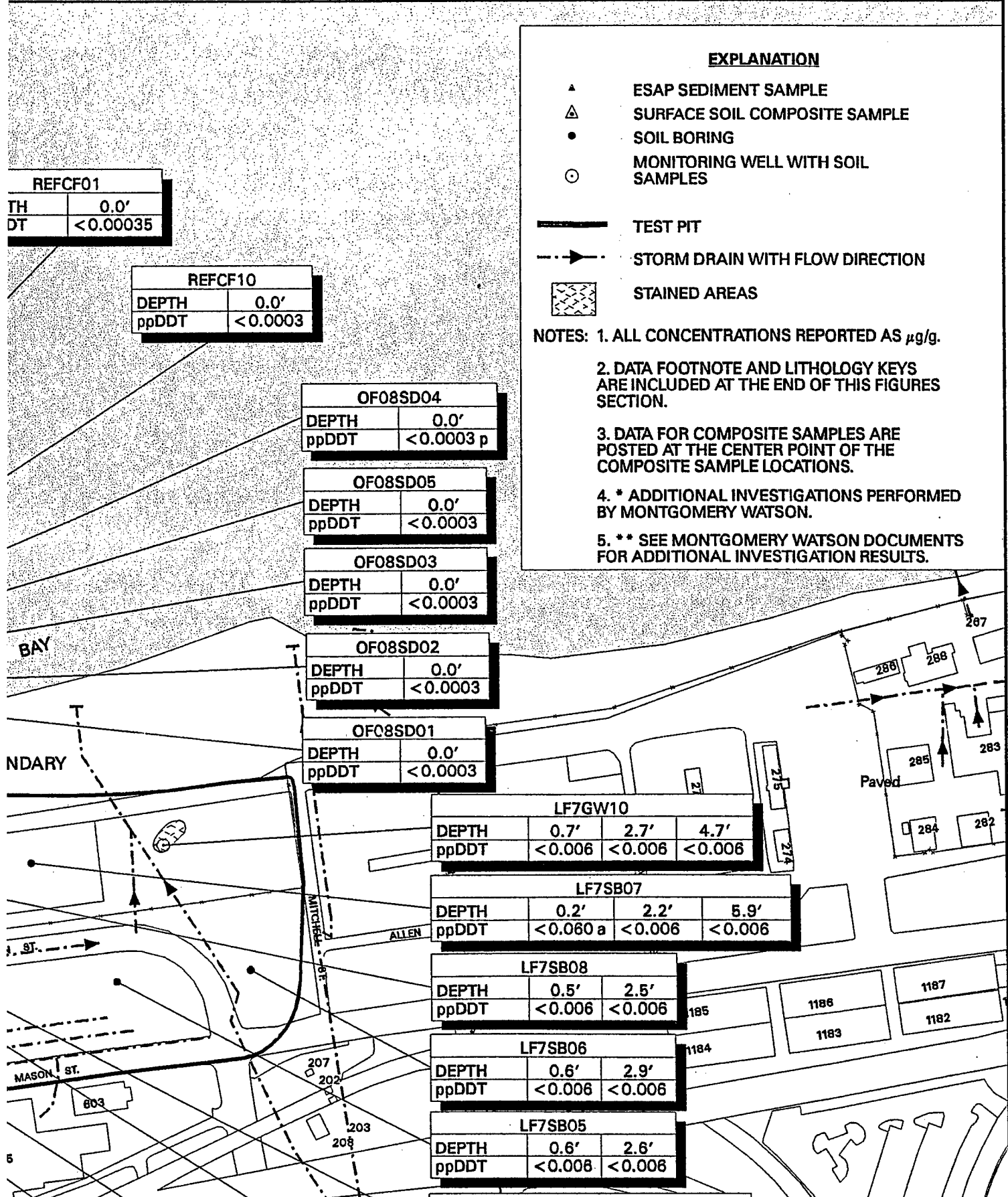
LF7TP03	
DEPTH	7.0'
ppDDT	<0.004











### EXPLANATION

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- ▨ STAINED AREAS

- NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .
2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.
3. DATA FOR COMPOSITE SAMPLES ARE POSTED AT THE CENTER POINT OF THE COMPOSITE SAMPLE LOCATIONS.
4. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.
5. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.

REFCF01	
TH	0.0'
DT	<0.00035

REFCF10	
DEPTH	0.0'
ppDDT	<0.0003

OF08SD04	
DEPTH	0.0'
ppDDT	<0.0003 p

OF08SD05	
DEPTH	0.0'
ppDDT	<0.0003

OF08SD03	
DEPTH	0.0'
ppDDT	<0.0003

OF08SD02	
DEPTH	0.0'
ppDDT	<0.0003

OF08SD01	
DEPTH	0.0'
ppDDT	<0.0003

LF7GW10			
DEPTH	0.7'	2.7'	4.7'
ppDDT	<0.006	<0.006	<0.006

LF7SB07			
DEPTH	0.2'	2.2'	5.9'
ppDDT	<0.060 a	<0.006	<0.006

LF7SB08		
DEPTH	0.5'	2.5'
ppDDT	<0.006	<0.006

LF7SB06		
DEPTH	0.6'	2.9'
ppDDT	<0.006	<0.006

LF7SB05		
DEPTH	0.6'	2.6'
ppDDT	<0.006	<0.006



31 Dec 98 09:11:00 Tuesday, base\_11x17\_v3.aml, plotfile base\_CRISSY2\_S\_45.gza, PSE

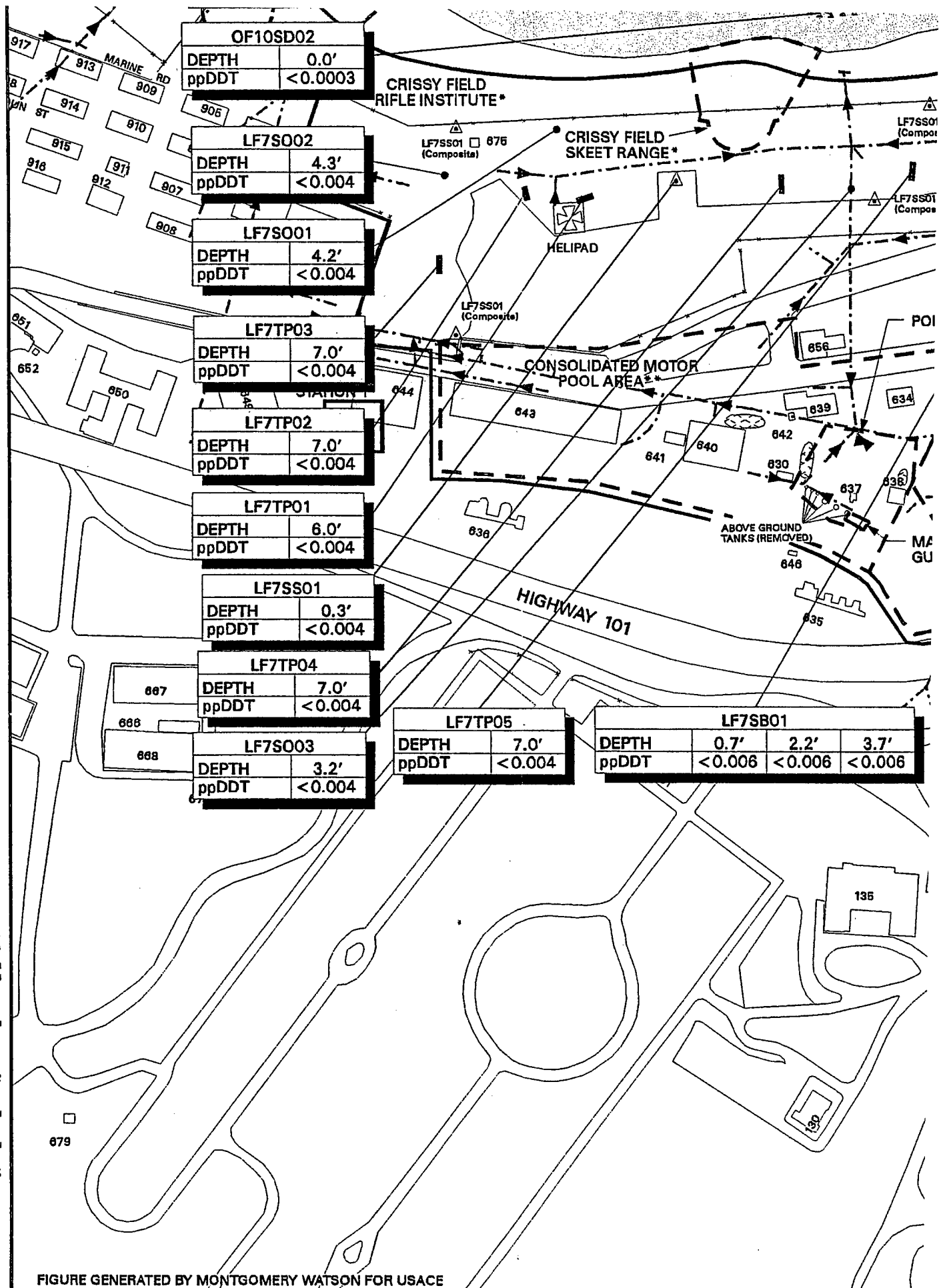
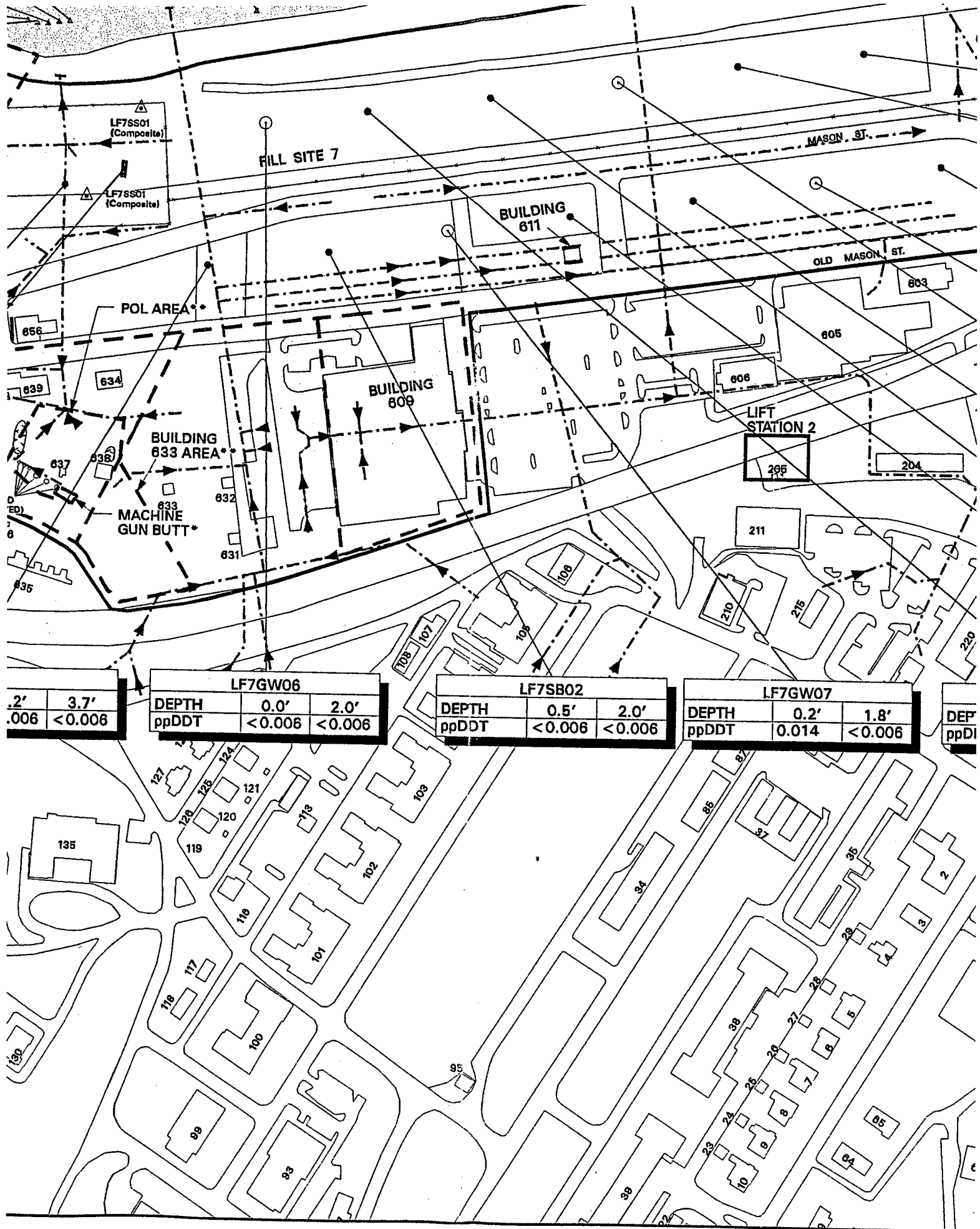


FIGURE GENERATED BY MONTGOMERY WATSON FOR USACE





2'	3.7'
0.006	<0.006

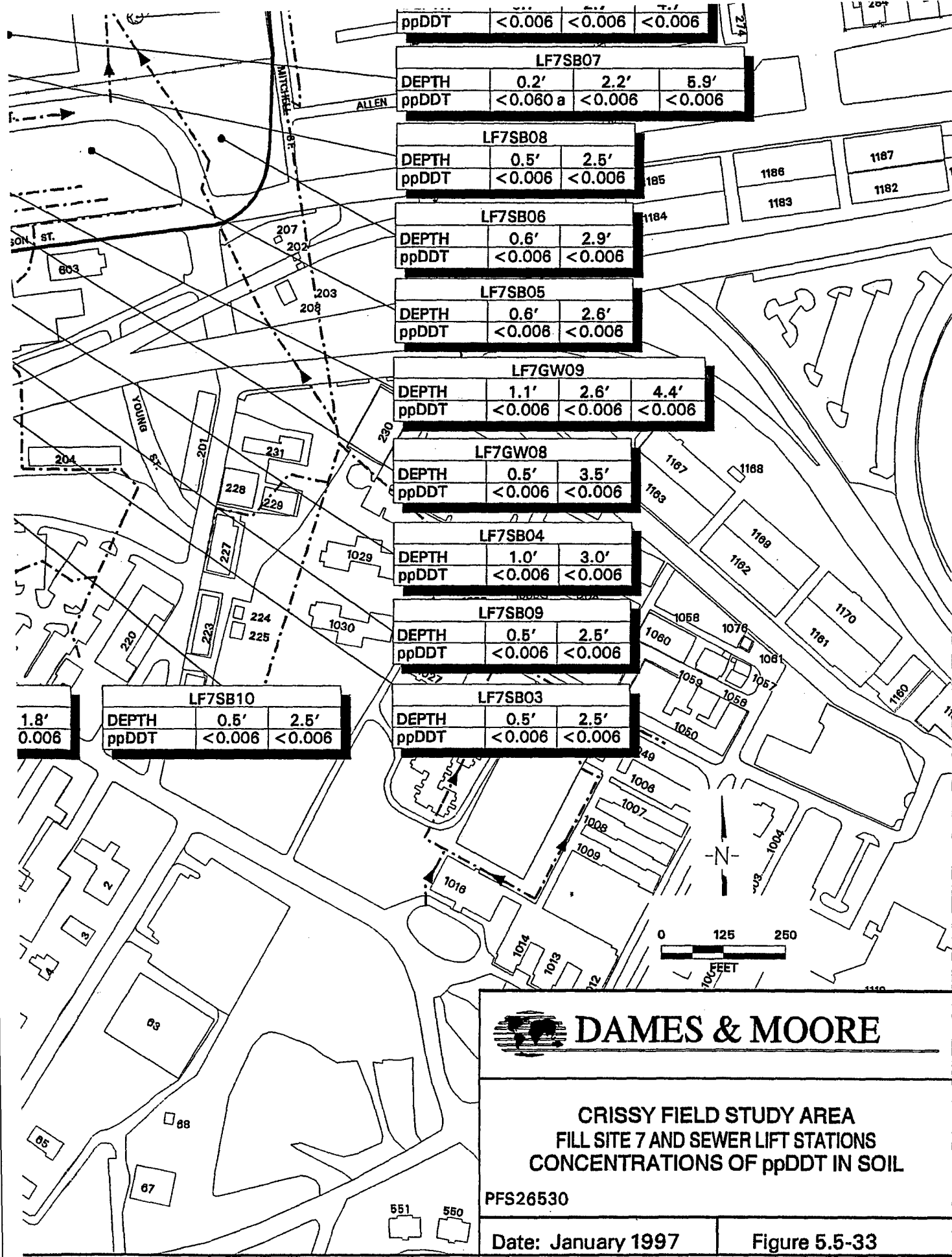
LF7GW06		
DEPTH	0.0'	2.0'
ppDDT	<0.006	<0.006

LF7SB02		
DEPTH	0.5'	2.0'
ppDDT	<0.006	<0.006

LF7GW07		
DEPTH	0.2'	1.8'
ppDDT	0.014	<0.006

DEPTH	
ppDDT	





**DAMES & MOORE**

**CRISSY FIELD STUDY AREA  
FILL SITE 7 AND SEWER LIFT STATIONS  
CONCENTRATIONS OF ppDDT IN SOIL**

PFS26530

Date: January 1997

Figure 5.5-33



REFCF03		
DEPTH	0.0'	
Endrin	<0.0004	

DEPTH	0.0'
Endrin	<0.0004

REFCF06		
DEPTH	0.0'	
Endrin	<0.0004	

OF10SD05		
DEPTH	0.0'	
Endrin	<0.00027	

OF10SD04		
DEPTH	0.0'	
Endrin	<0.00027 p	

OF10SD03		
DEPTH	0.0'	
Endrin	<0.00027	

OF10SD02		
DEPTH	0.0'	
Endrin	<0.00027 p	

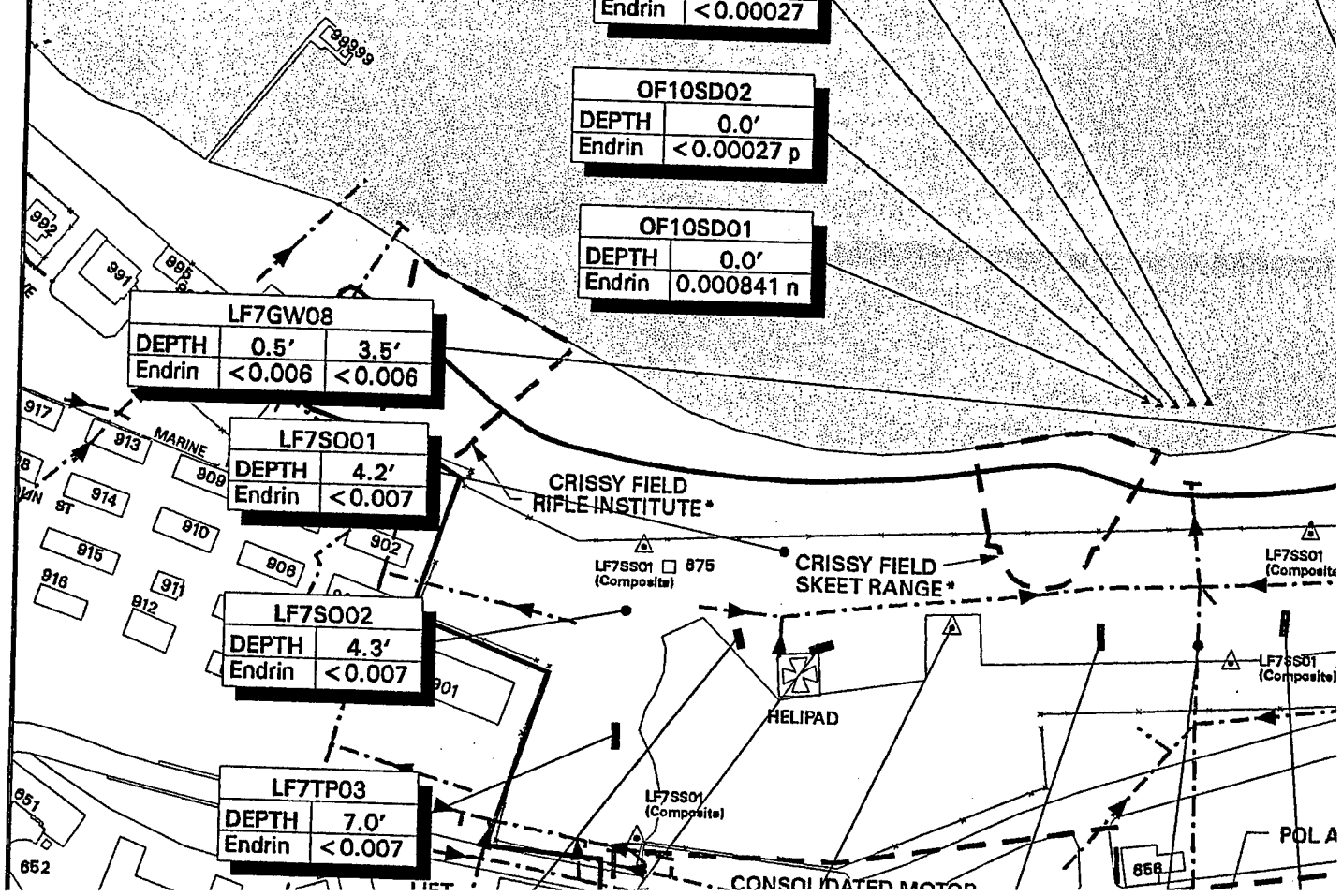
OF10SD01		
DEPTH	0.0'	
Endrin	0.000841 n	

LF7GW08			
DEPTH	0.5'	3.5'	
Endrin	<0.006	<0.006	

LF7S001		
DEPTH	4.2'	
Endrin	<0.007	

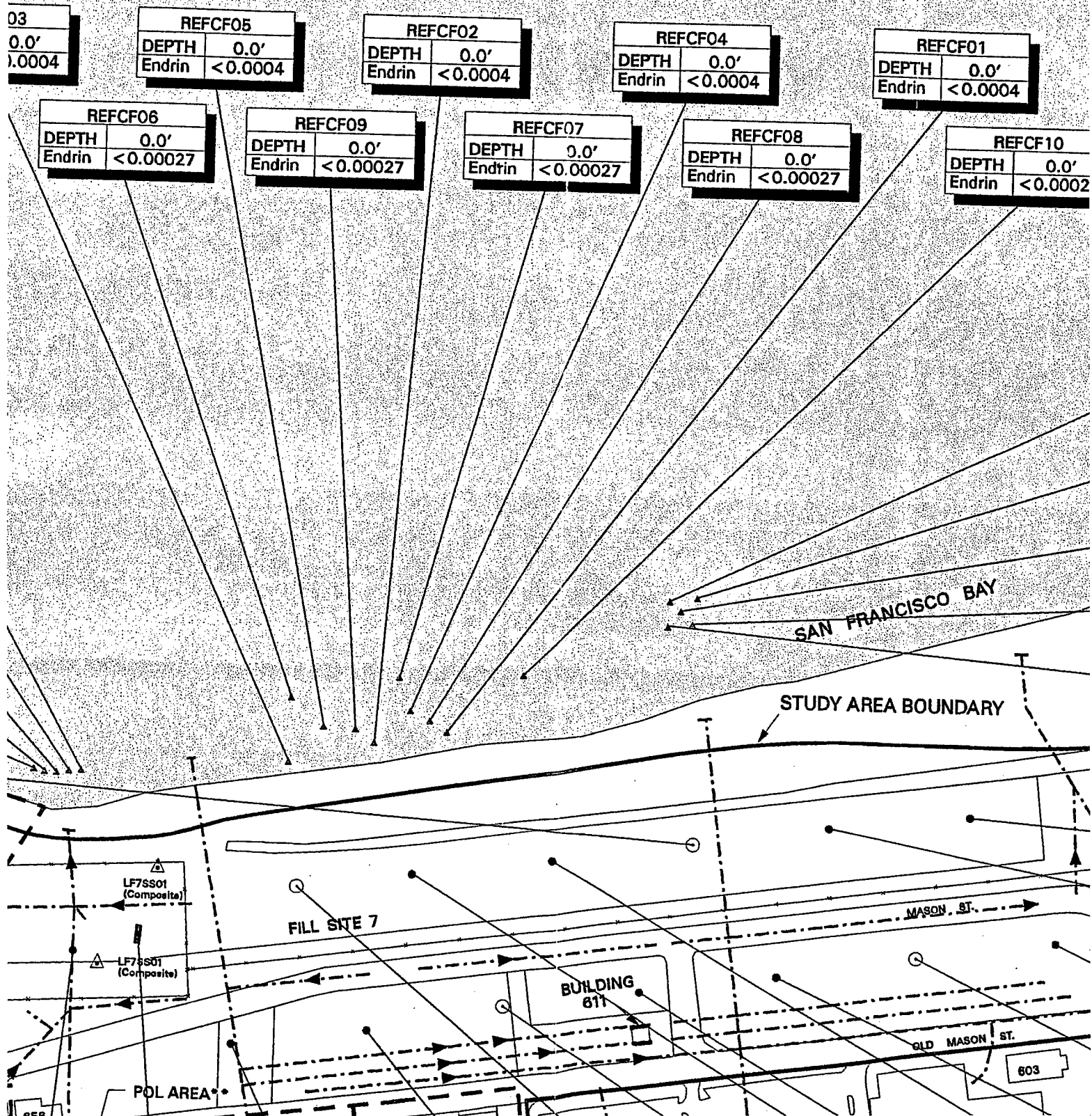
LF7S002		
DEPTH	4.3'	
Endrin	<0.007	

LF7TP03		
DEPTH	7.0'	
Endrin	<0.007	





2





01
0.0'
0.0004

REFCF10	
DEPTH	0.0'
Endrin	<0.00027

OF08SD04	
DEPTH	0.0'
Endrin	0.000554 n

OF08SD05	
DEPTH	0.0'
Endrin	<0.00027

OF08SD03	
DEPTH	0.0'
Endrin	<0.00027 p

OF08SD02	
DEPTH	0.0'
Endrin	0.00181 n

OF08SD01	
DEPTH	0.0'
Endrin	0.000717 n

LF7GW10			
DEPTH	0.7'	2.7'	4.7'
Endrin	<0.006	<0.006	<0.006

LF7SB07			
DEPTH	0.2'	2.2'	5.9'
Endrin	<0.060	<0.006	<0.006

LF7SB08		
DEPTH	0.5'	2.5'
Endrin	<0.006	<0.006

LF7SB06		
DEPTH	0.6'	2.9'
Endrin	<0.006	<0.006

LF7SB05		
DEPTH	0.6'	2.6'

### EXPLANATION

- ▲ ESAP SEDIMENT SAMPLE
- △ SURFACE SOIL COMPOSITE SAMPLE
- SOIL BORING
- MONITORING WELL WITH SOIL SAMPLES
- TEST PIT
- - -> STORM DRAIN WITH FLOW DIRECTION
- ▨ STAINED AREAS

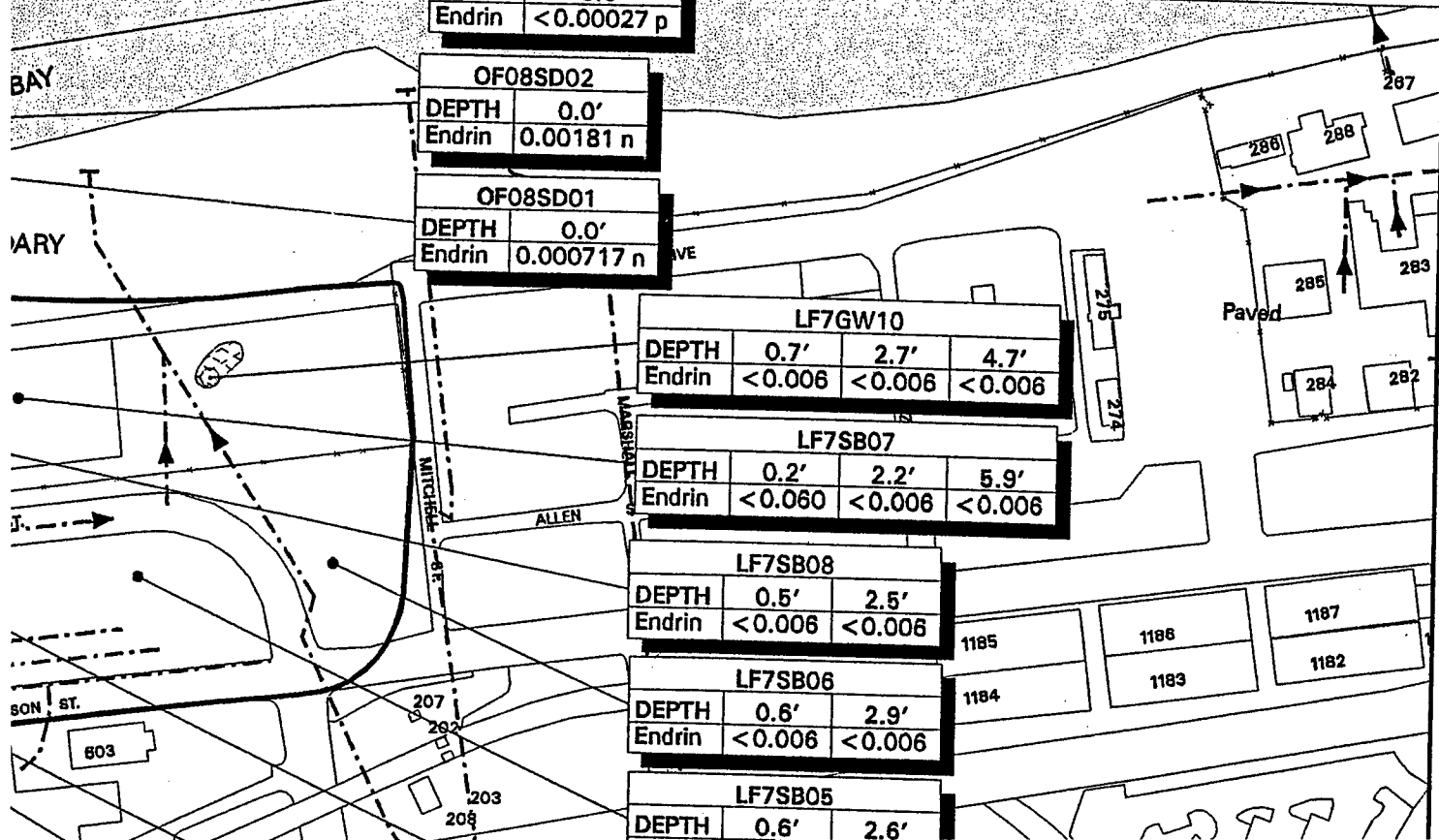
NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/g}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. DATA FOR COMPOSITE SAMPLES ARE POSTED AT THE CENTER POINT OF THE COMPOSITE SAMPLE LOCATIONS.

4. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.

5. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.



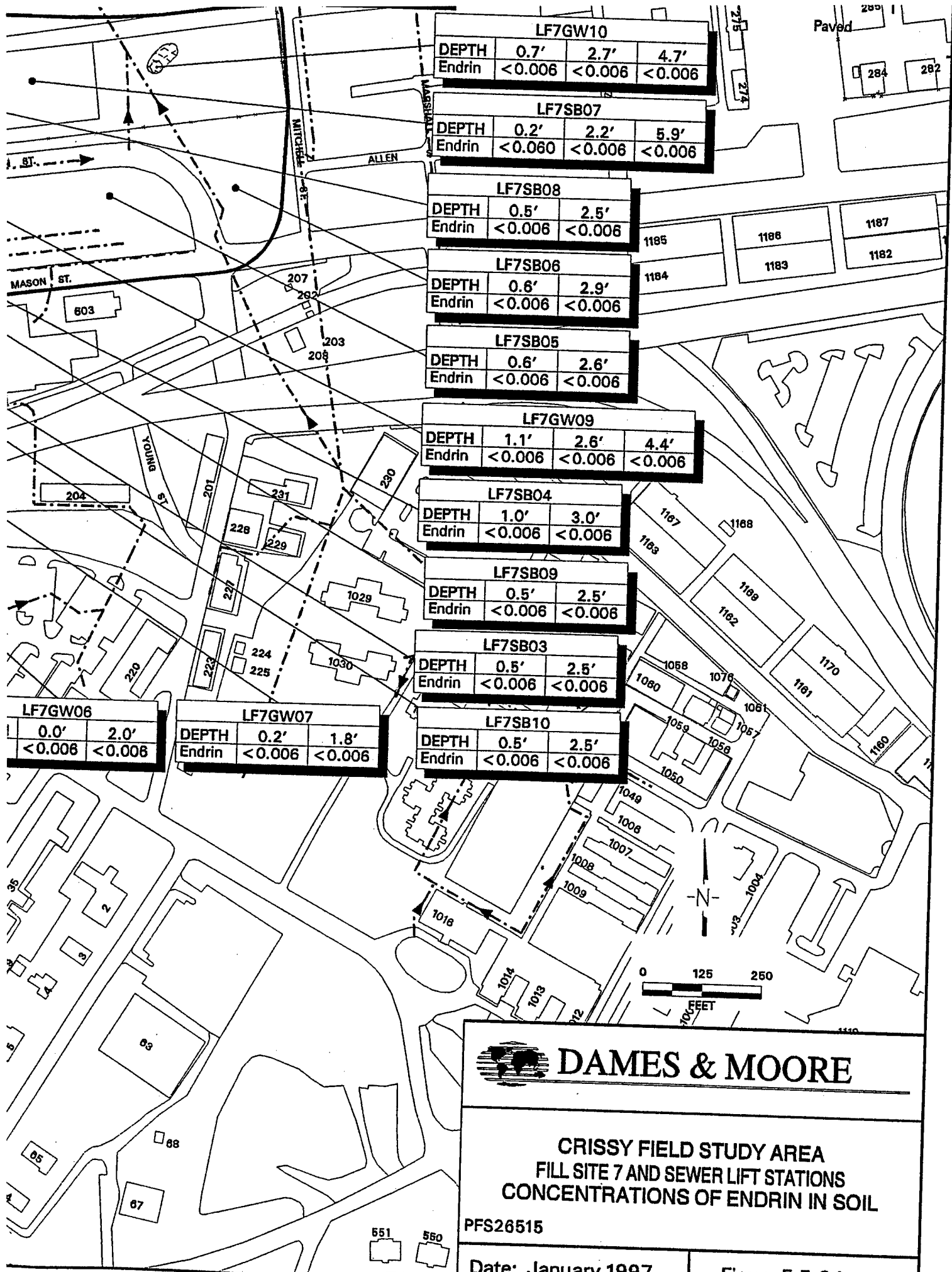












**DAMES & MOORE**

**CRISSY FIELD STUDY AREA  
FILL SITE 7 AND SEWER LIFT STATIONS  
CONCENTRATIONS OF ENDRIN IN SOIL**

PFS26515

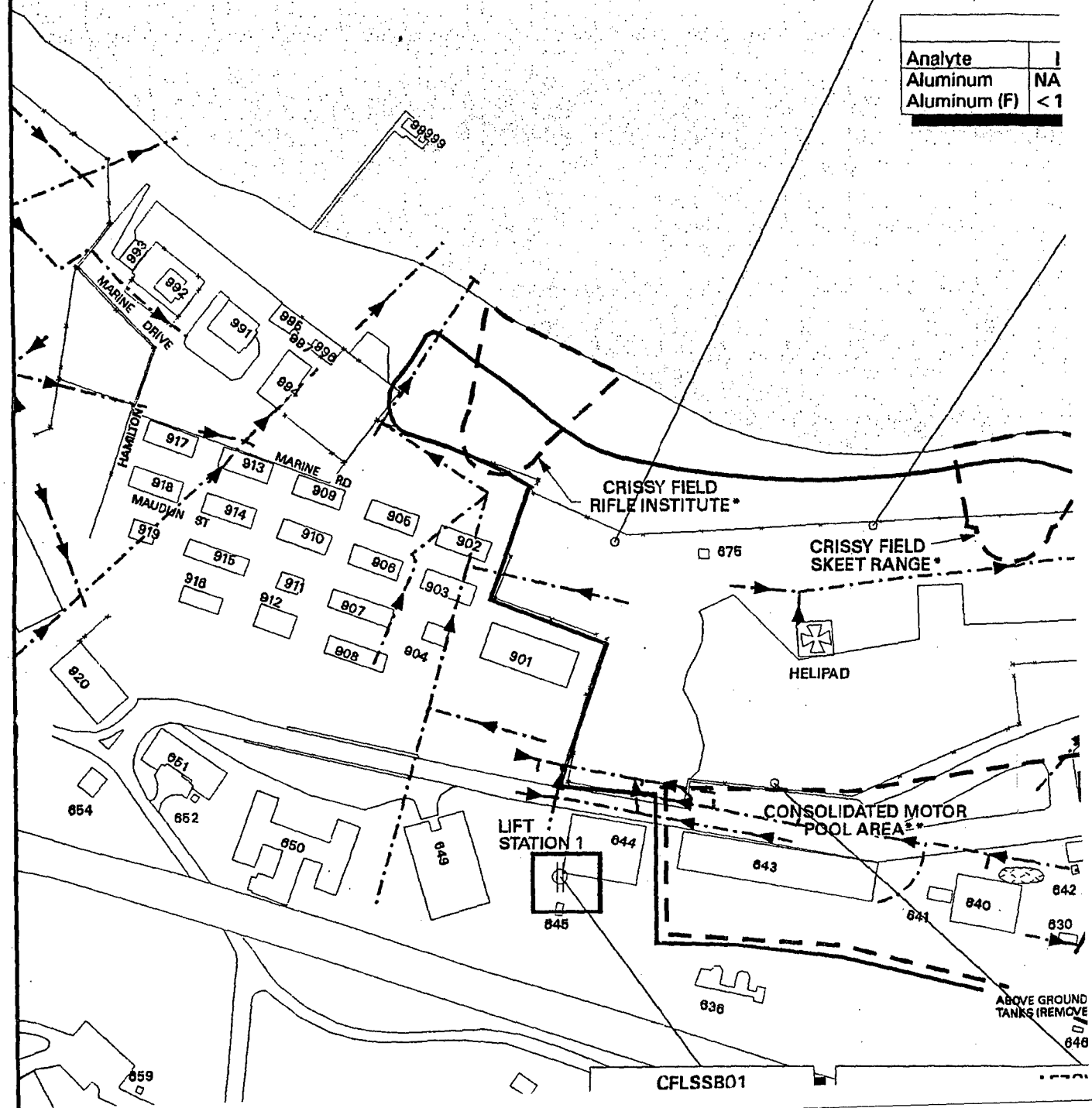
Date: January 1997

Figure 5.5-34



LF7GW03			
Analyte	Initial RI	Suppl. RI	Folc
Aluminum	NA	NA	1100
Aluminum (F)	<112.000	<141.000	<25

Analyte	
Aluminum	NA
Aluminum (F)	<1





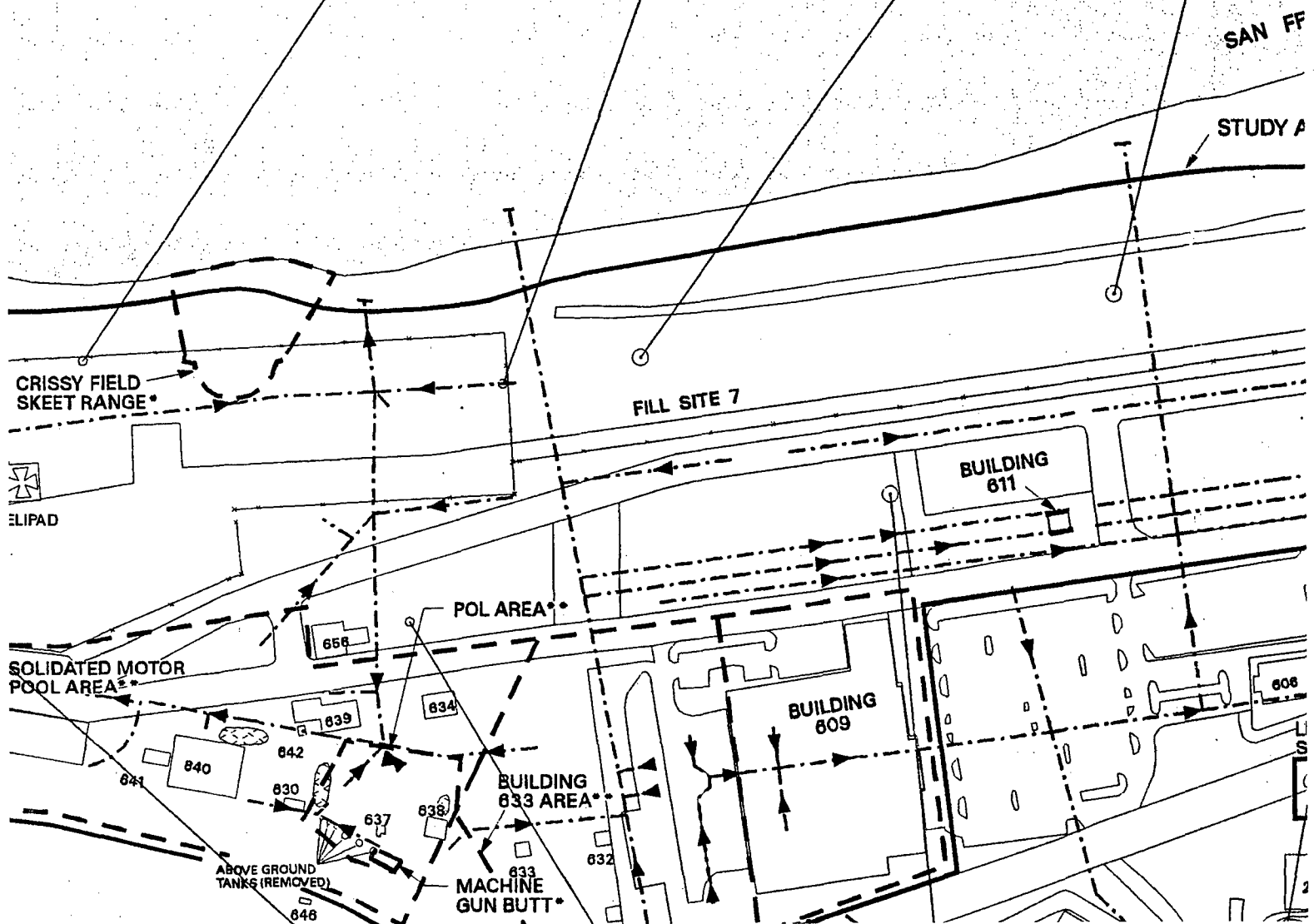
LF7GW03		
Initial RI	Suppl. RI	Follow-on RI
112.000	NA < 141.000	1100 < 25.0

LF7GW05			
Analyte	Initial RI	Suppl. RI	Follow-on RI
Aluminum	NA	NA	122 f
Aluminum (F)	< 112.000	< 141.000	< 25.0

LF7GW08	
Analyte	Suppl. RI
Aluminum	249.000
Aluminum (F)	< 141.000

LF7GW04			
Analyte	Initial RI	Suppl. RI	Follow-on RI
Aluminum	NA	NA	328 f
Aluminum (F)	< 112.000	< 141.000	< 25.0

LF7GW06		
Analyte	Suppl. RI	Follow-on RI
Aluminum	1140.000	2130
Aluminum (F)	< 141.000	< 25.0





08	
RI	Follow-on RI
	365
00	< 25.0

**EXPLANATION**

MONITORING WELL



MONITORING WELL WITH SOIL SAMPLES



SOIL BORING WITH DISCRETE GROUNDWATER SAMPLE



TEST PIT



STORM DRAIN WITH FLOW DIRECTION



STAINED AREAS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/L}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. (F) INDICATES FILTERED SAMPLE.

4. NA = NOT ANALYZED

5. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.

6. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.

FRANCISCO BAY

Y AREA BOUNDARY

MARINE DRIVE

JAUSS ST.

MARSHALL ST.

ZASCHNITZ ST.

MASON ST.

OLD MASON ST.

**LF7GW10**

Analyte	Suppl. RI	Follow-on RI
Aluminum	7370.000	2920
Aluminum (F)	< 141.000	79.0

**LF7GW09**

Analyte	Suppl. RI	Follow-on RI
Aluminum	NA	5340
Aluminum (F)	< 141.000	< 25.0

208

LIFT STATION 2

295

211

YOUNG ST.

201

231

228

229

230

1158

1167

1168

1064

1163

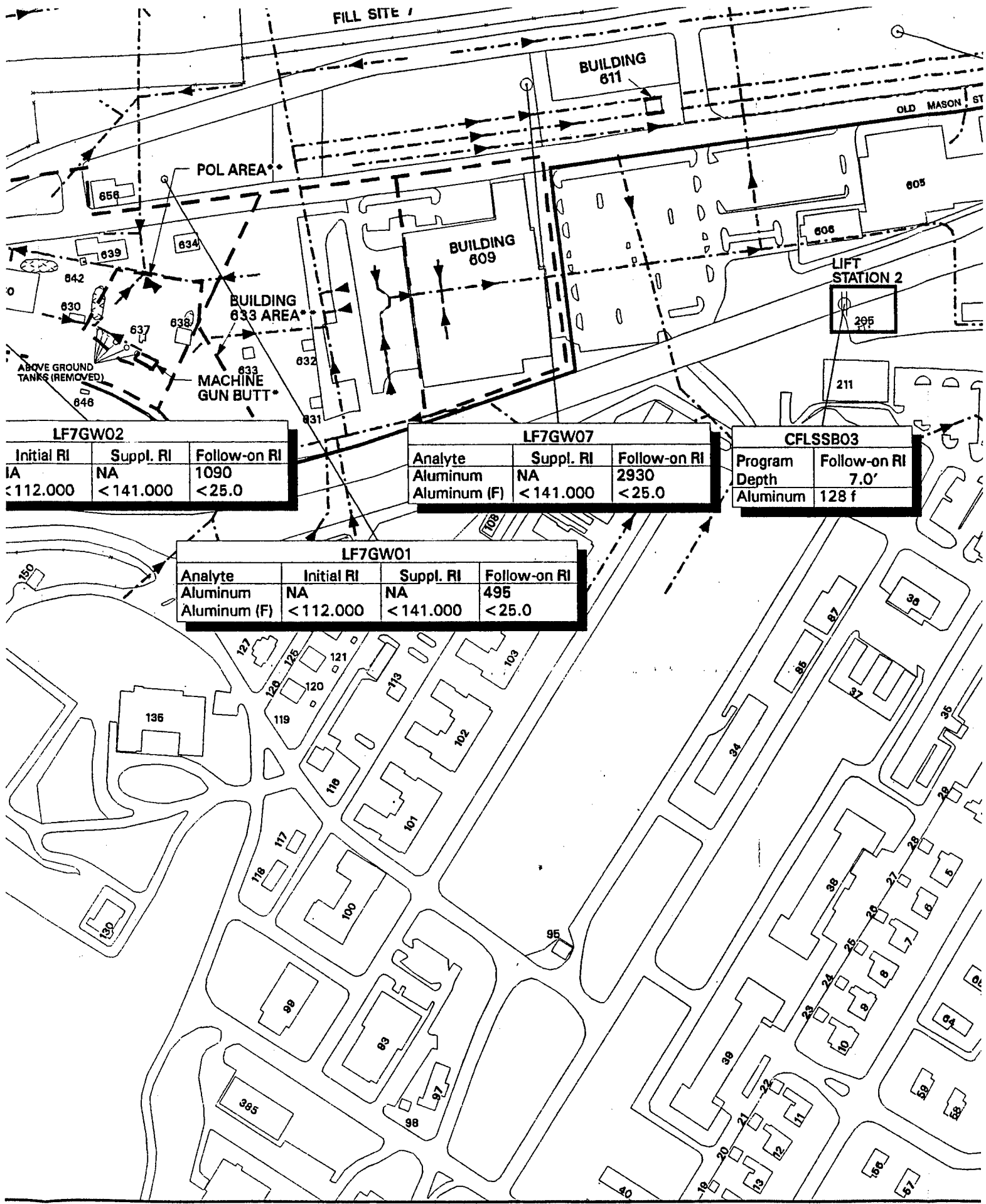
116

116









LF7GW02		
Initial RI	Suppl. RI	Follow-on RI
IA	NA	1090
<112.000	<141.000	<25.0

LF7GW07		
Analyte	Suppl. RI	Follow-on RI
Aluminum	NA	2930
Aluminum (F)	<141.000	<25.0

CFLSSB03	
Program	Follow-on RI
Depth	7.0'
Aluminum	128 f

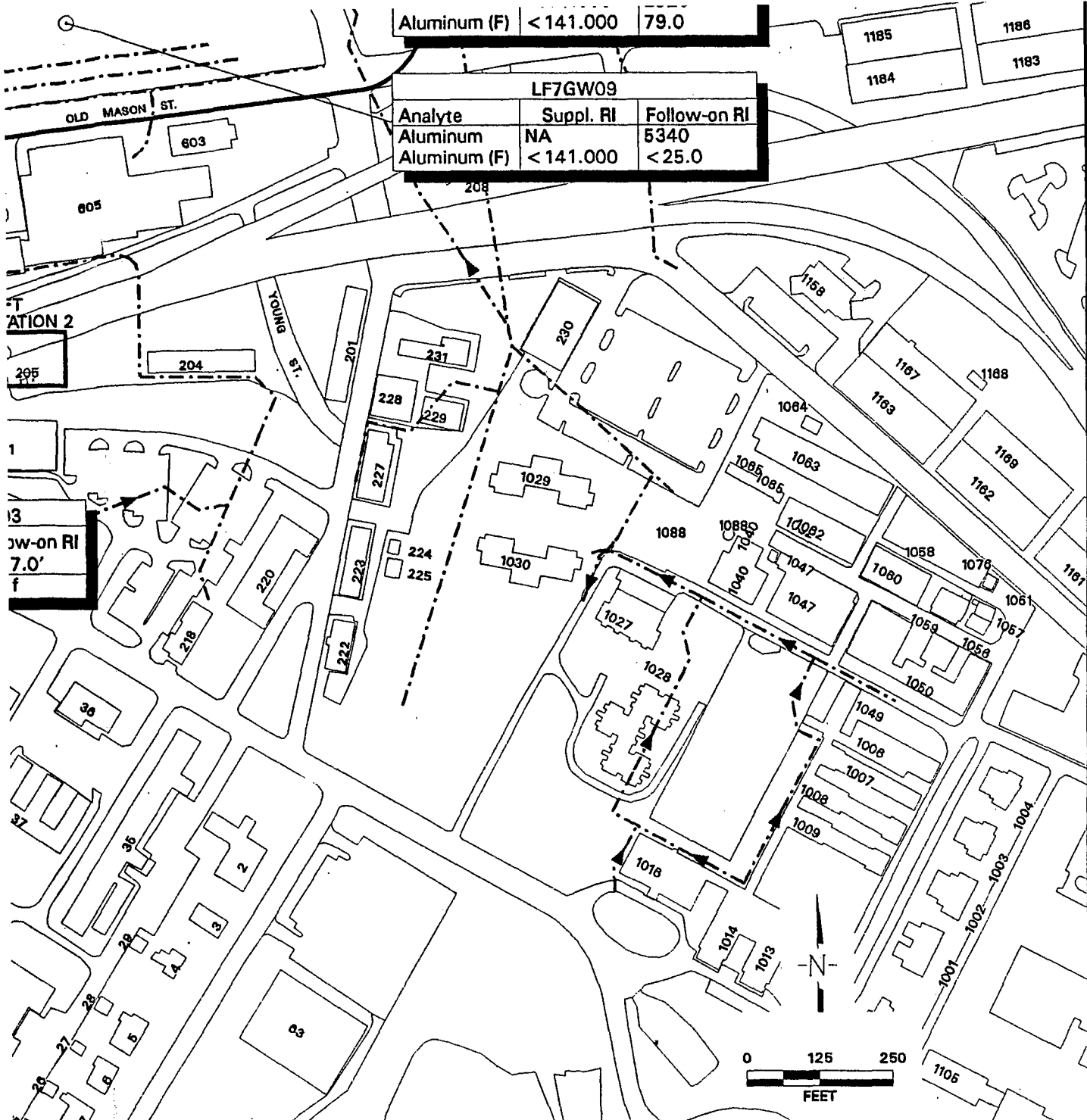
LF7GW01			
Analyte	Initial RI	Suppl. RI	Follow-on RI
Aluminum	NA	NA	495
Aluminum (F)	<112.000	<141.000	<25.0



Aluminum (F) < 141.000 79.0

LF7GW09

Analyte	Suppl. RI	Follow-on RI
Aluminum	NA	5340
Aluminum (F)	< 141.000	< 25.0



**DAMES & MOORE**

**CRISSY FIELD STUDY AREA  
FILL SITE 7 AND SEWER LIFT STATIONS  
CONCENTRATIONS OF ALUMINUM IN GROUNDWATER**

PFS26503

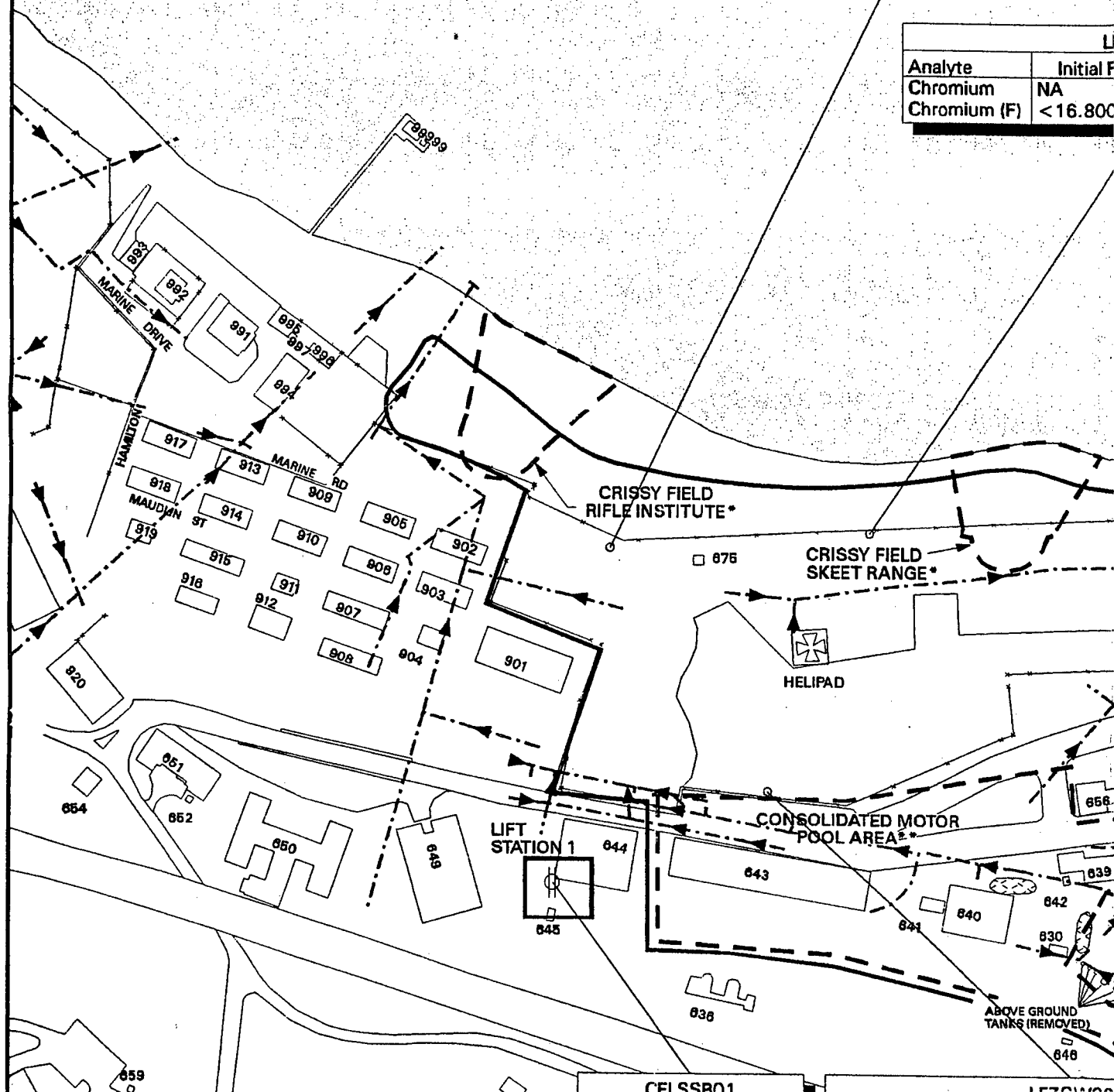
Date: January 1997

Figure 5.5-35



LF7GW03			
Analyte	Initial RI	Suppl. RI	Follow-on
Chromium	NA	NA	14.0 f
Chromium (F)	< 16.800	11.300	< 5.00

L	
Analyte	Initial F
Chromium	NA
Chromium (F)	< 16.800



CEI SSR01

LF7GW03



This technical map illustrates the San Francisco area, specifically focusing on the 'STUDY AREA E'. The map shows various landmarks and infrastructure, including:

- San Francisco**: Located at the top right of the map.
- STUDY AREA E**: Indicated by a dashed line and an arrow pointing to the right.
- FILL SITE 7**: A specific location marked on the map.
- BUILDING 611**: A large building structure shown in the upper right.
- BUILDING 609**: A large building structure shown in the lower right.
- POL AREA**: A designated area marked with a dashed line.
- MACHINE**: A small structure or equipment located near the bottom center.
- LIFT STATION**: A station located near the bottom right.
- ABOVE GROUND TANKS (REMOVED)**: A note indicating the removal of certain structures.
- Numbered Points**: Numerous points are marked with numbers, including 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, and 642.
- Dashed Lines**: These lines likely represent paths, boundaries, or specific areas of interest.

The map is oriented with San Francisco at the top right, and the 'STUDY AREA E' is clearly demarcated by a dashed line and an arrow.



8	
11	Follow-on RI
	<5.00
	<5.00

**EXPLANATION**

- MONITORING WELL
- ⊙ MONITORING WELL WITH SOIL SAMPLES
- ⊗ SOIL BORING WITH DISCRETE GROUNDWATER SAMPLE
- TEST PIT
- > STORM DRAIN WITH FLOW DIRECTION
- ▨ STAINED AREAS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/L}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. (F) INDICATES FILTERED SAMPLE.

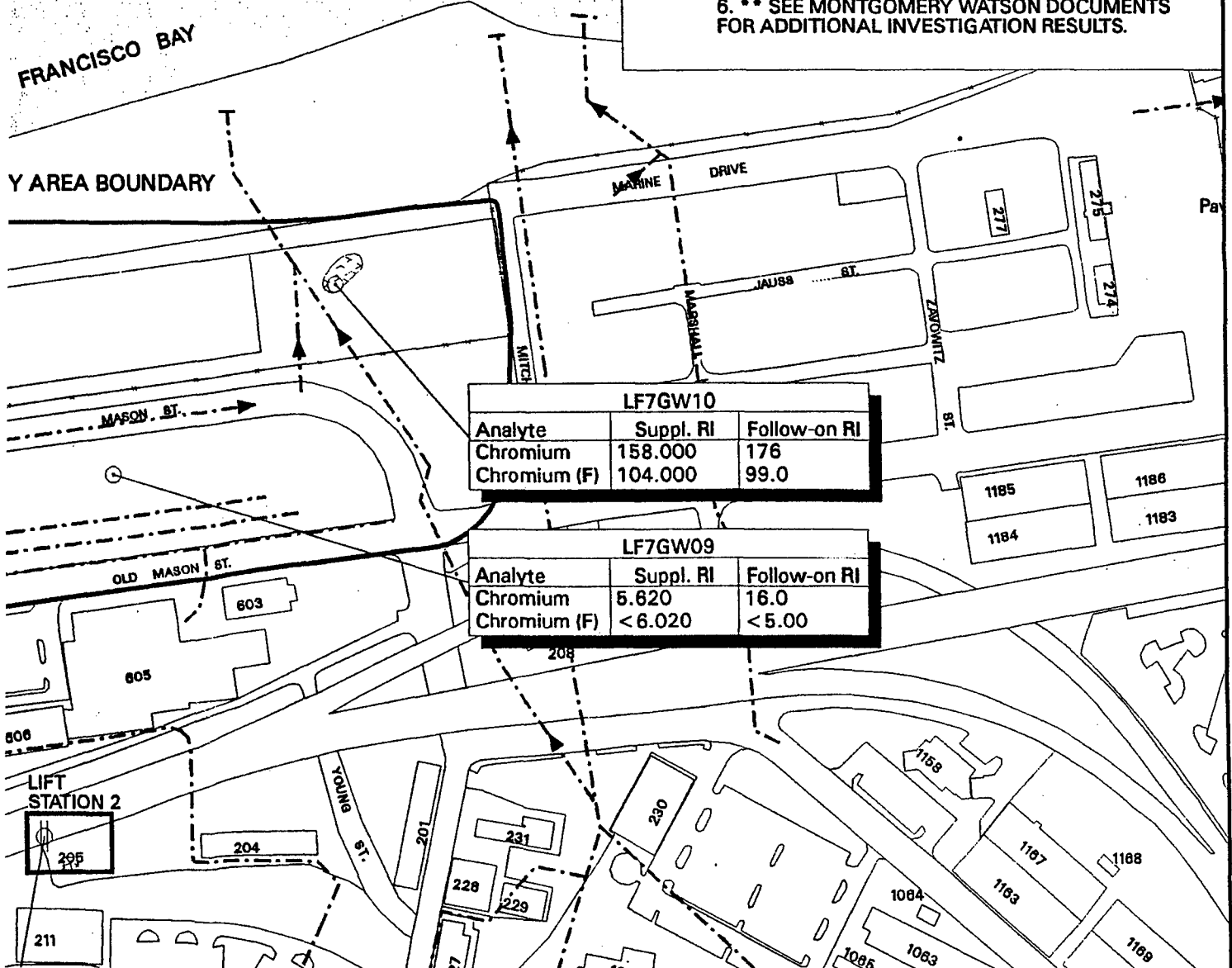
4. NA = NOT ANALYZED

5. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.

6. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.

FRANCISCO BAY

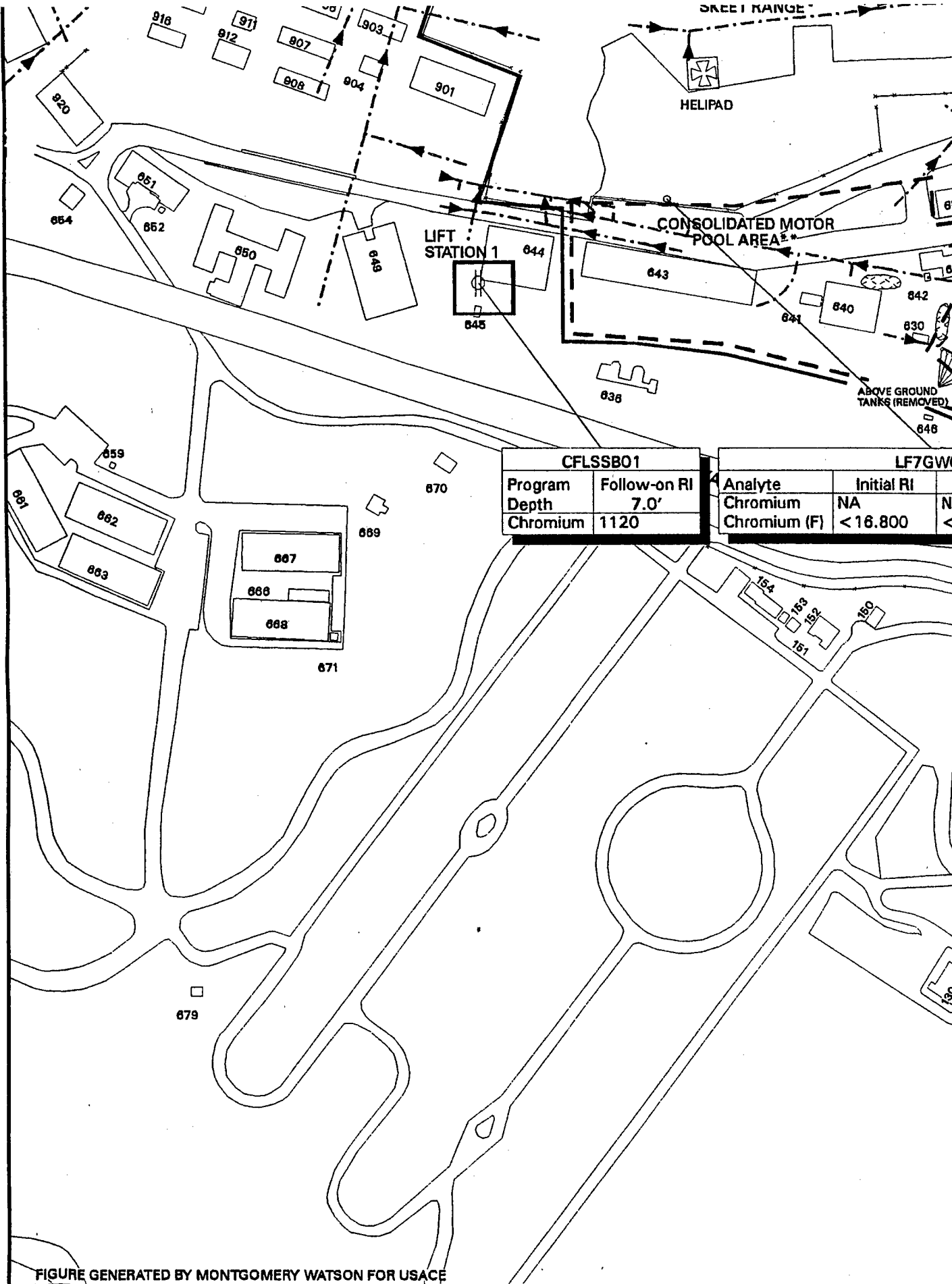
Y AREA BOUNDARY



LF7GW10		
Analyte	Suppl. RI	Follow-on RI
Chromium	158.000	176
Chromium (F)	104.000	99.0

LF7GW09		
Analyte	Suppl. RI	Follow-on RI
Chromium	5.620	16.0
Chromium (F)	< 6.020	< 5.00





26 Dec 96 16:06:51 Thursday, base\_11x17\_v3.mxd, plotfile base\_CRISSY2\_WH\_7.gm, PSF

FIGURE GENERATED BY MONTGOMERY WATSON FOR USACE

4

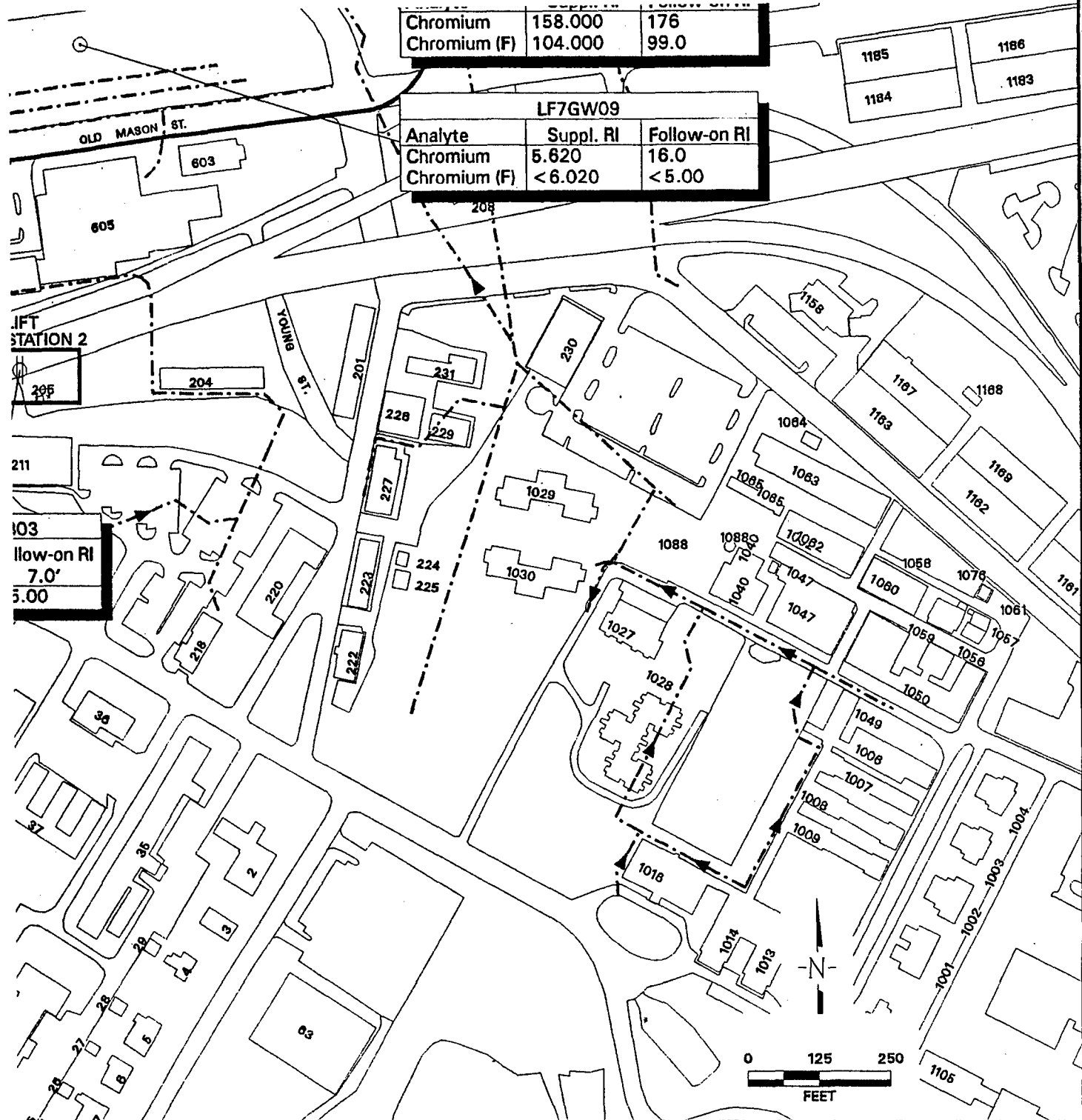







Chromium	158.000	176
Chromium (F)	104.000	99.0

LF7GW09		
Analyte	Suppl. RI	Follow-on RI
Chromium	5.620	16.0
Chromium (F)	< 6.020	< 5.00



LIFT STATION 2  
 205  
 204  
 211  
 103  
 Follow-on RI  
 7.0  
 5.00


**DAMES & MOORE**

**CRISSY FIELD STUDY AREA**  
**FILL SITE 7 AND SEWER LIFT STATIONS**  
**CONCENTRATIONS OF CHROMIUM IN GROUNDWATER**  
 PFS26511

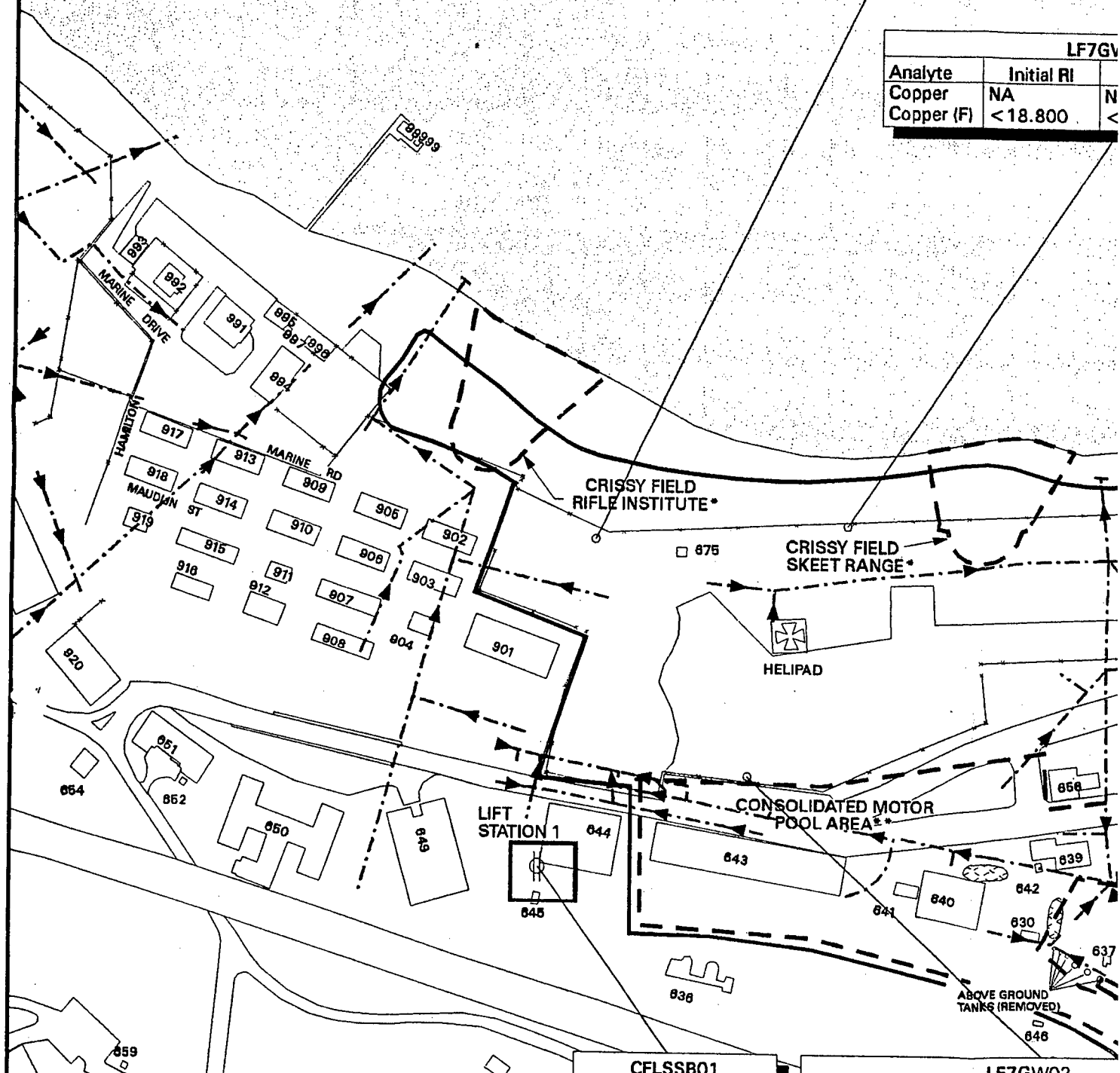
Date: January 1997
 

Figure 5.5-36



LF7GW03			
Analyte	Initial RI	Suppl. RI	Follow-on RI
Copper	NA	NA	2.77 f
Copper (F)	< 18.800	< 8.090	4.77

LF7GV		
Analyte	Initial RI	N
Copper	NA	N
Copper (F)	< 18.800	<



CFLSSR01

LF7GW03



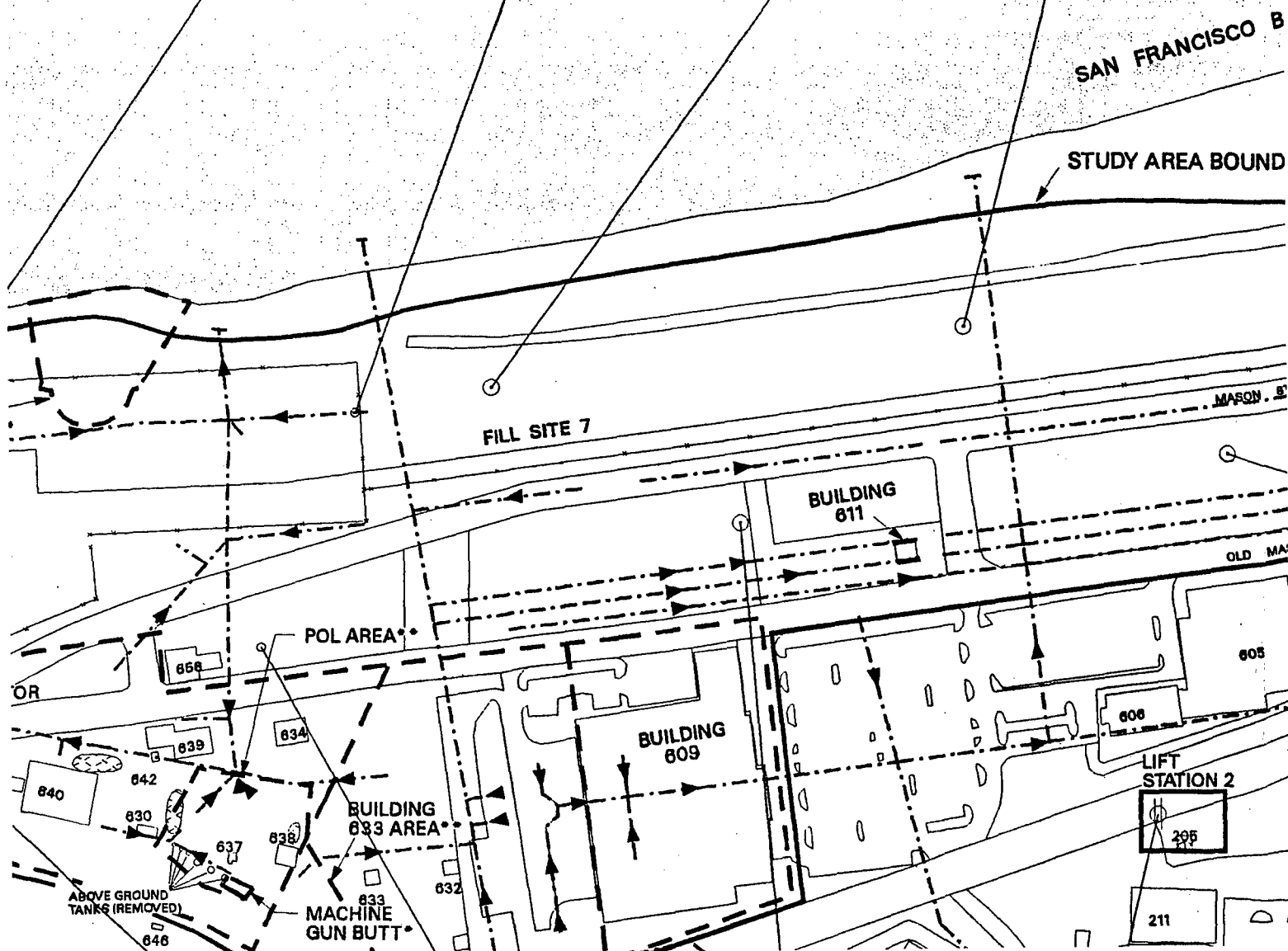
ppl. RI	Follow-on RI
2.77 f	
090	4.77

LF7GW05			
Analyte	Initial RI	Suppl. RI	Follow-on RI
Copper	NA	NA	< 1.00 n
Copper (F)	< 18.800	< 8.090	5.80

LF7GW08		
Analyte	Suppl. RI	Follow-on RI
Copper	< 8.090	3.77 f
Copper (F)	< 8.090	2.55

LF7GW04			
alyte	Initial RI	Suppl. RI	Follow-on RI
pper	NA	NA	< 1.00 n
pper (F)	< 18.800	< 8.090	5.20

LF7GW06		
Analyte	Suppl. RI	Follow-on RI
Copper	< 8.090	3.86 f
Copper (F)	< 8.090	1.57





Follow-on RI  
3.77 f  
2.55

**EXPLANATION**

- MONITORING WELL
- ⊙ MONITORING WELL WITH SOIL SAMPLES
- ⊕ SOIL BORING WITH DISCRETE GROUNDWATER SAMPLE
- TEST PIT
- - -> STORM DRAIN WITH FLOW DIRECTION
- ▨ STAINED AREAS

**NOTES:** 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/L}$ .

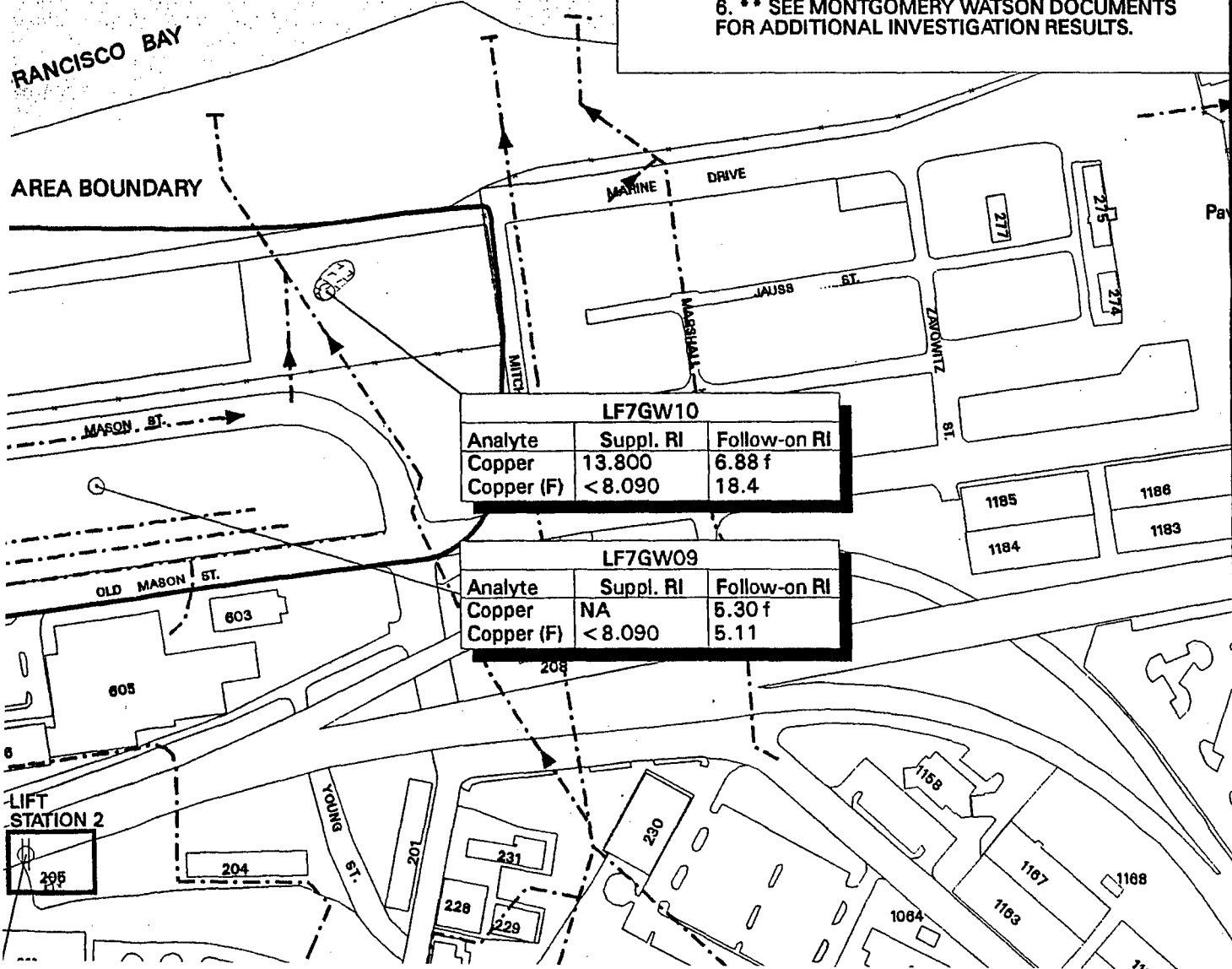
2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. (F) INDICATES FILTERED SAMPLE.

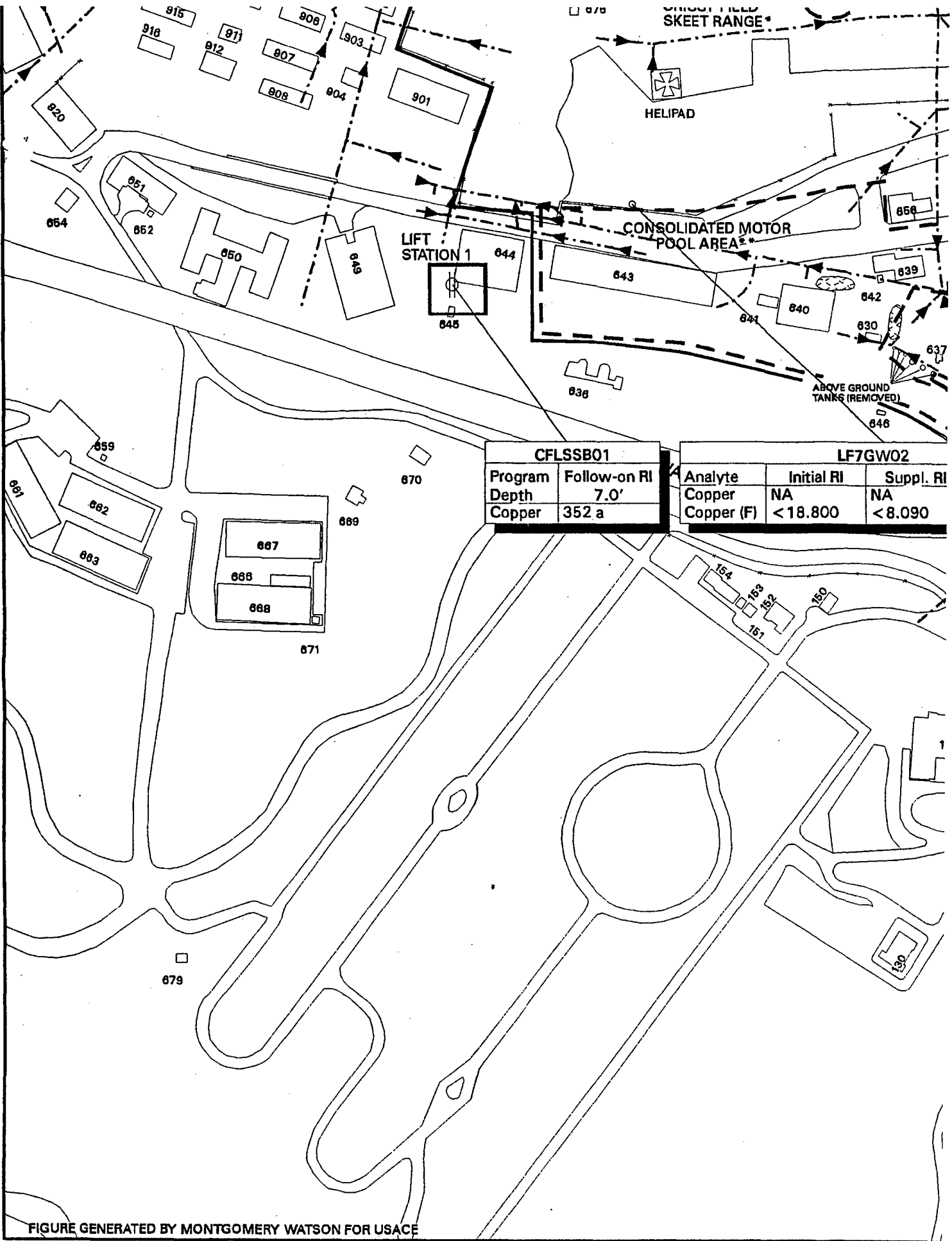
4. NA = NOT ANALYZED

5. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.

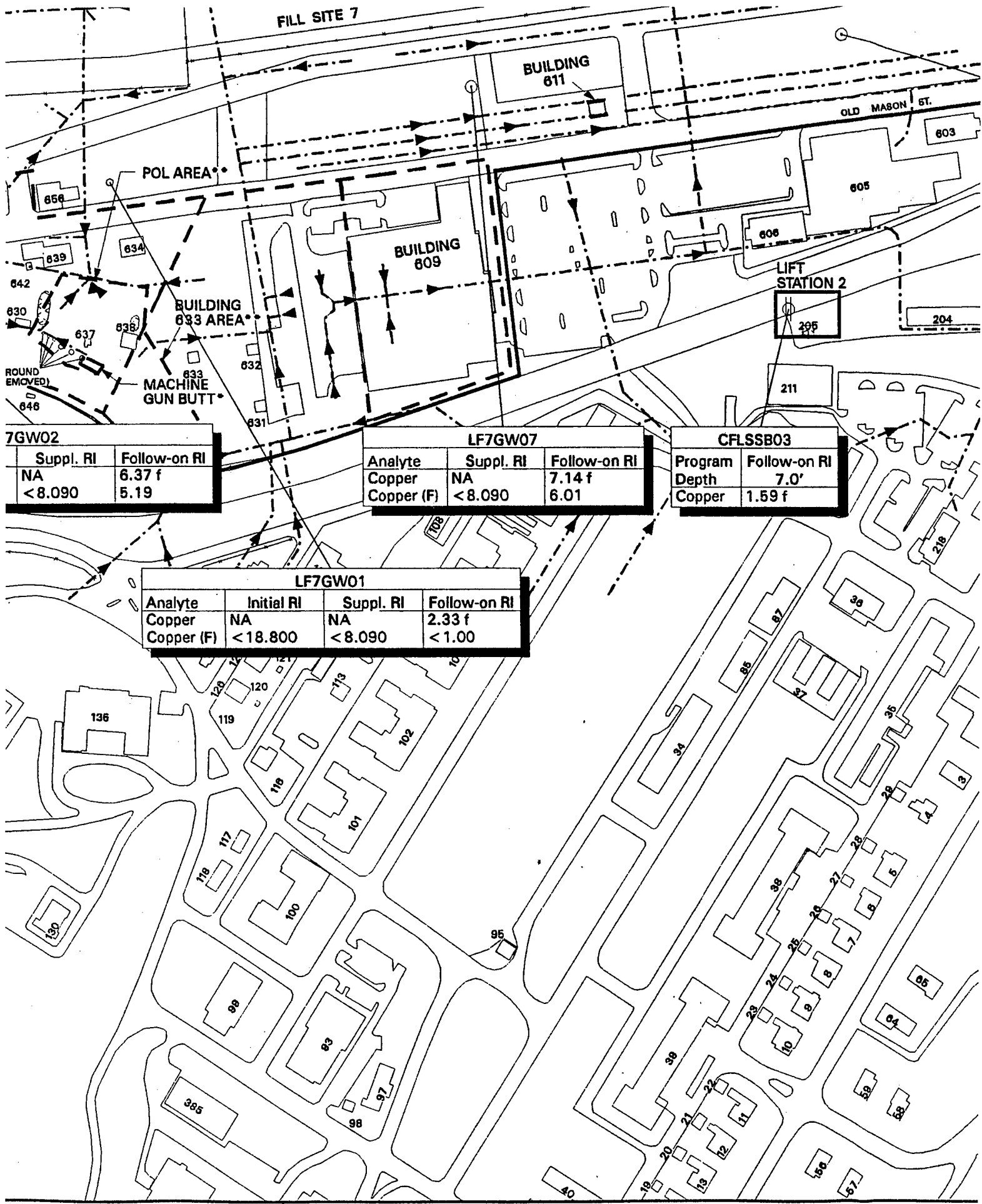
6. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.











7GW02	
Suppl. RI	Follow-on RI
NA	6.37 f
<8.090	5.19

LF7GW07		
Analyte	Suppl. RI	Follow-on RI
Copper	NA	7.14 f
Copper (F)	<8.090	6.01

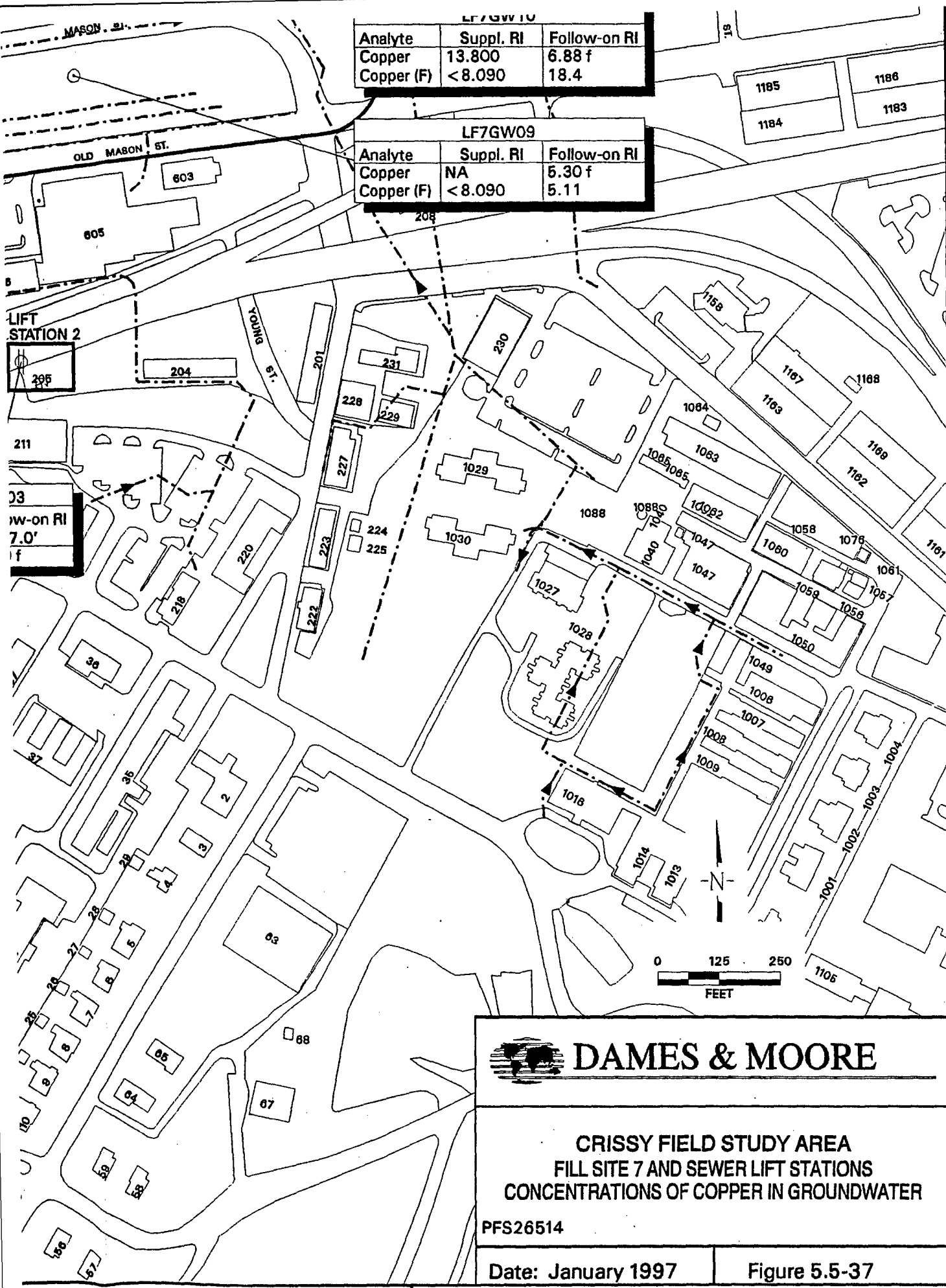
CFLSSB03	
Program	Follow-on RI
Depth	7.0'
Copper	1.59 f

LF7GW01			
Analyte	Initial RI	Suppl. RI	Follow-on RI
Copper	NA	NA	2.33 f
Copper (F)	<18.800	<8.090	<1.00



LF7GW10		
Analyte	Suppl. RI	Follow-on RI
Copper	13.800	6.88 f
Copper (F)	<8.090	18.4

LF7GW09		
Analyte	Suppl. RI	Follow-on RI
Copper	NA	5.30 f
Copper (F)	<8.090	5.11



**DAMES & MOORE**

**CRISSY FIELD STUDY AREA  
FILL SITE 7 AND SEWER LIFT STATIONS  
CONCENTRATIONS OF COPPER IN GROUNDWATER**

PFS26514

Date: January 1997

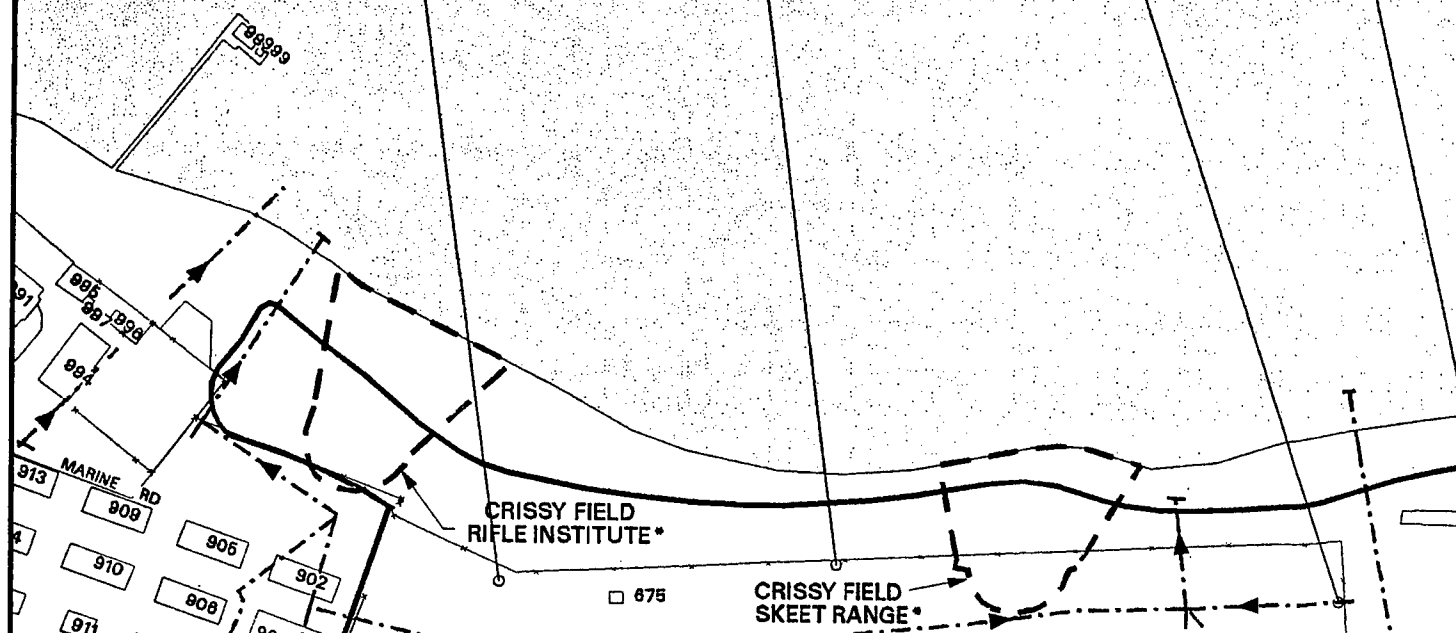
Figure 5.5-37



LF7GW06		
Analyte	Suppl. RI	Follow-on RI
Lead	NA	5.64
Lead (F)	1.520	<0.735

LF7GW05		
Analyte	Suppl. RI	Follow-on RI
Lead	NA	< 0.735
Lead (F)	< 1.260	< 0.735

LF
Program
Depth
Lead





LF7GW06	
Suppl. RI	Follow-on RI
NA	5.64
1.520	<0.735

LF7SB38	
Program Depth	Follow-on RI 6.0'
Lead	< 5

LF7SB23			
Program Depth	Follow-on RI 6.5'	Follow-on RI 18.5'	Follow-on RI 26.0'
Lead	13 f	< 5	< 5

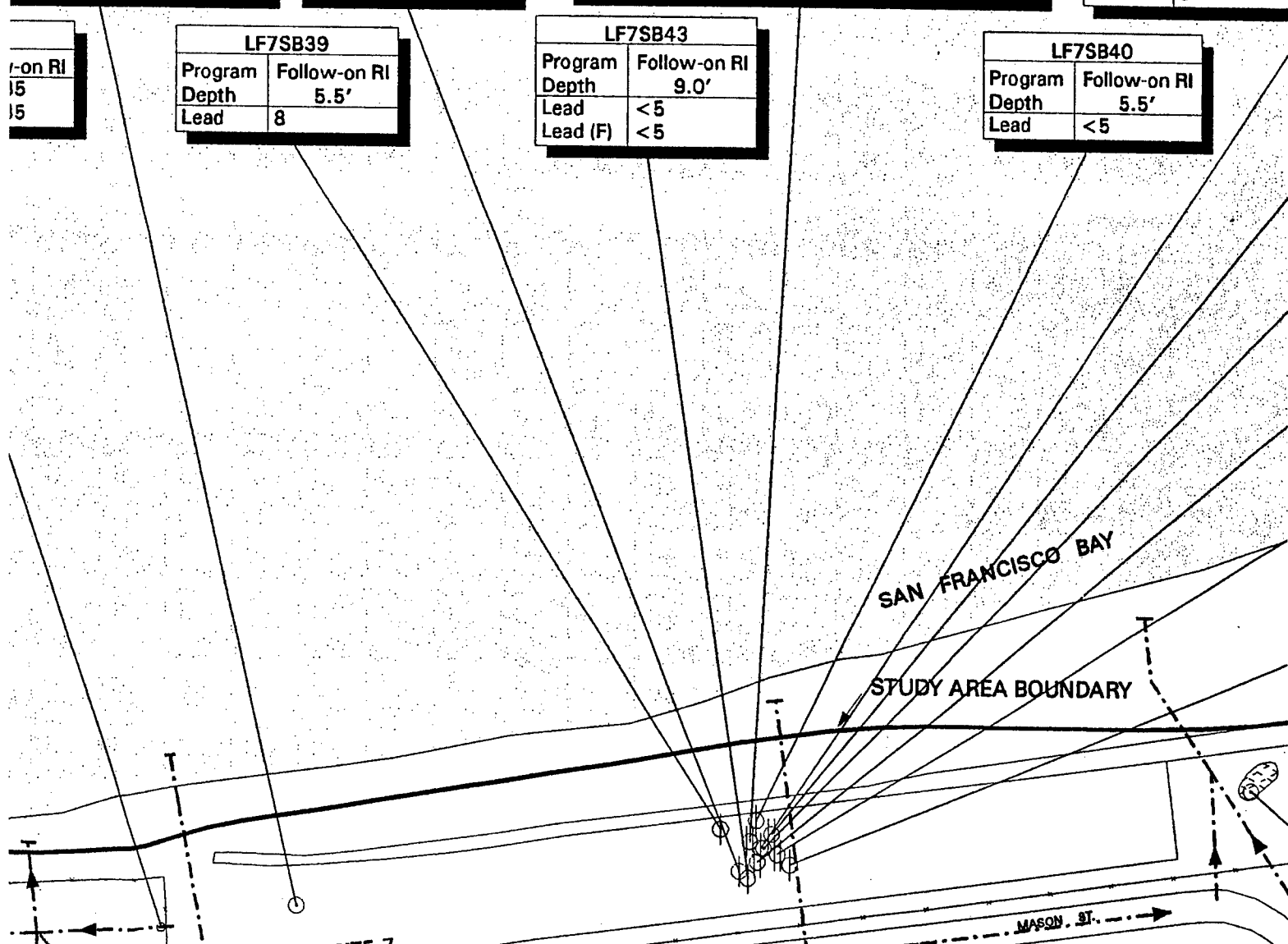
L	
Program Depth	Follow-on R 6.5'
Lead	9

<b>LF7SB39</b>	
<b>Program Depth</b>	<b>Follow-on RI 5.5'</b>
<b>Lead</b>	<b>8</b>

LF7SB43	
Program Depth	Follow-on RI 9.0'
Lead	< 5
Lead (F)	< 5

LF7SB40	
Program Depth	Follow-on RI 5.5'
Lead	< 5

1-on RI	
15	
15	





**EXPLANATION**

DISCRETE GROUNDWATER SAMPLE  
MONITORING WELL



MONITORING WELL WITH SOIL  
SAMPLES



SOIL BORING WITH DISCRETE  
GROUNDWATER SAMPLE



TEST PIT



STORM DRAIN WITH FLOW DIRECTION



STAINED AREAS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/L}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS  
ARE INCLUDED AT THE END OF THIS FIGURES  
SECTION.

3. (F) INDICATES FILTERED SAMPLE.

4. NA = NOT ANALYZED

5. \* ADDITIONAL INVESTIGATIONS PERFORMED  
BY MONTGOMERY WATSON.

6. \*\* SEE MONTGOMERY WATSON DOCUMENTS  
FOR ADDITIONAL INVESTIGATION RESULTS.

**LF7SB20**

Follow-on RI 6.5'	Follow-on RI 16.5'	Follow-on RI 25.0'
9	< 5	8

**LF7SB24**

Program	Follow-on RI 7.5'	Follow-on RI 17.5'	Follow-on RI 25.5'
Depth	22	< 5	9
Lead			

**LF7GW08**

Analyte	Suppl. RI	Follow-on RI
Lead	NA	< 5
Lead (F)	120.000	< 5

**LF7SB22**

Program	Follow-on RI 6.5'	Follow-on RI 16.5'	Follow-on RI 25.0'
Depth	17 f	< 5	12 f
Lead			

**LF7SB21**

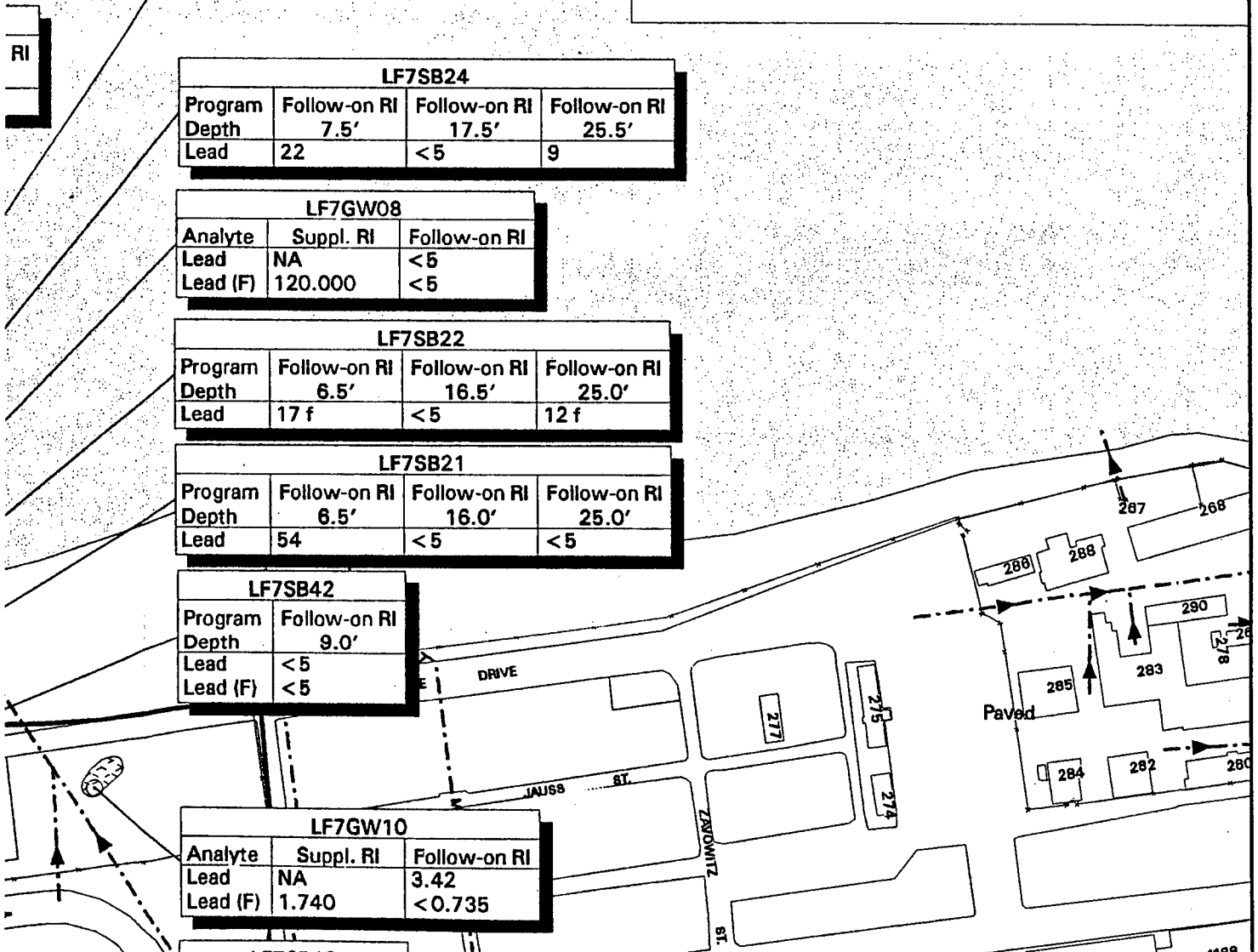
Program	Follow-on RI 6.5'	Follow-on RI 16.0'	Follow-on RI 25.0'
Depth	54	< 5	< 5
Lead			

**LF7SB42**

Program	Follow-on RI 9.0'
Depth	< 5
Lead	< 5
Lead (F)	

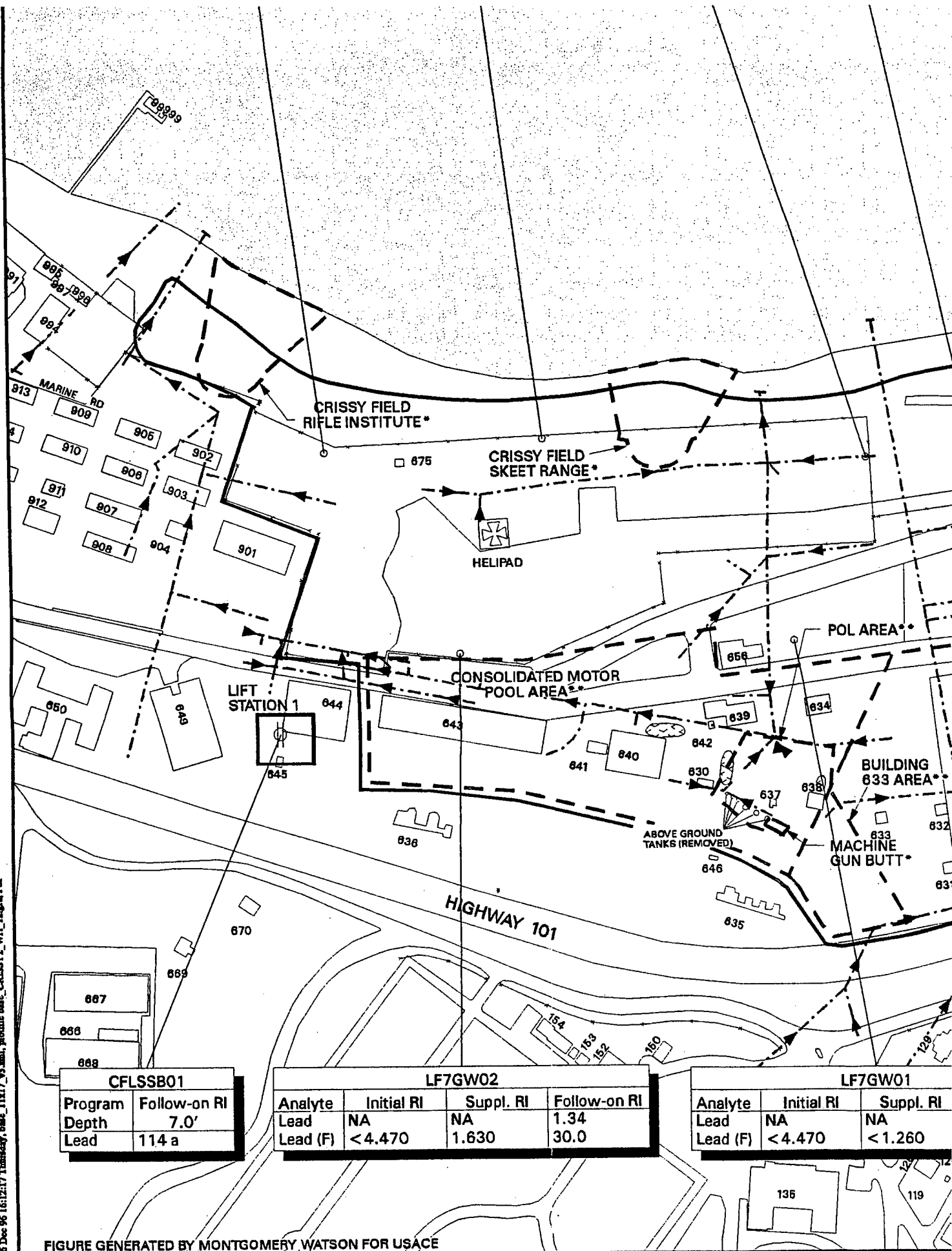
**LF7GW10**

Analyte	Suppl. RI	Follow-on RI
Lead	NA	3.42
Lead (F)	1.740	< 0.735





26 Dec 96 16:12:17 Thursday, base\_11x17\_v9.mxd, plottid base\_CRISSY2.WH.12.gm, PSR



CFLSSB01	
Program	Follow-on RI
Depth	7.0'
Lead	114 a

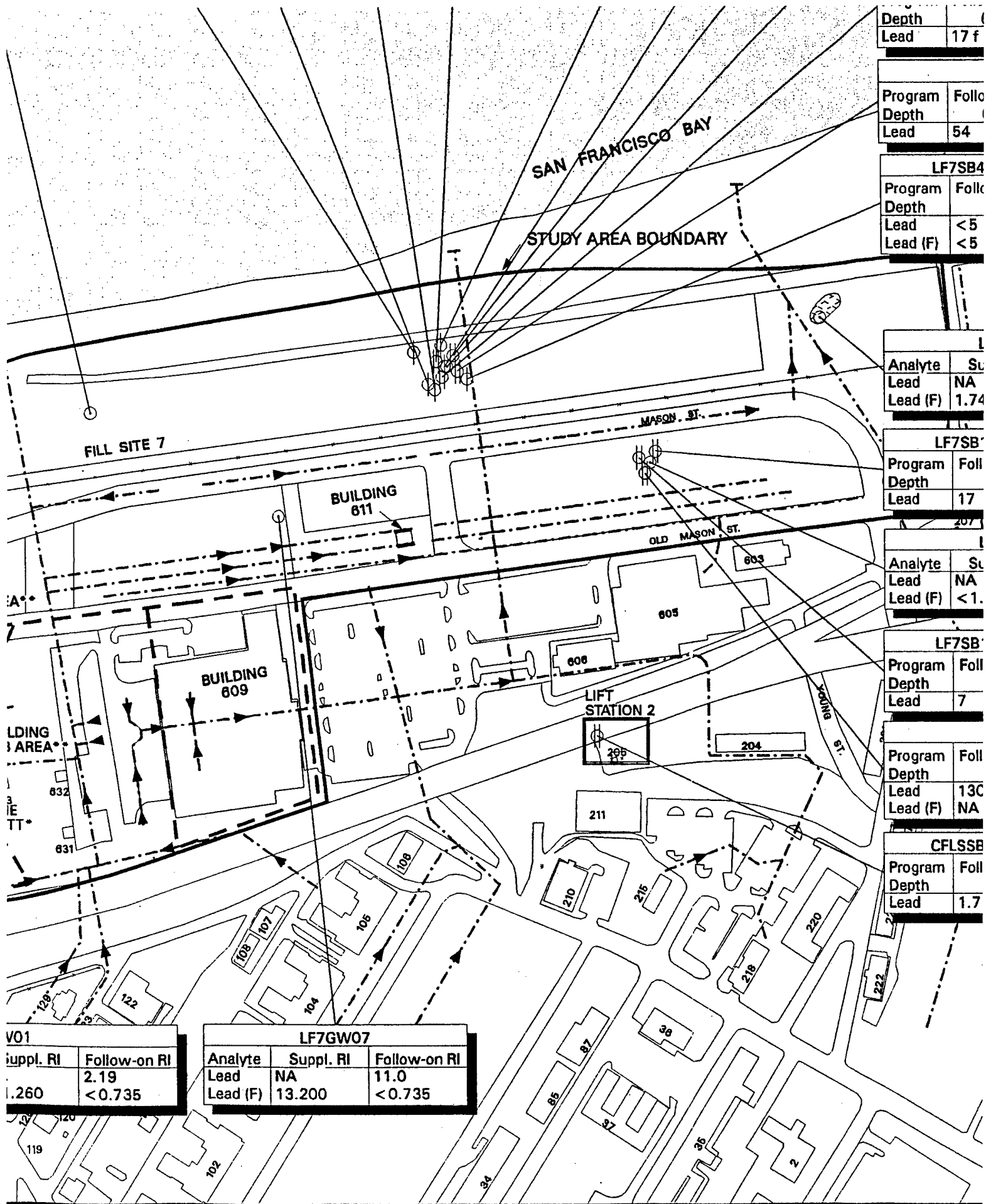
LF7GW02			
Analyte	Initial RI	Suppl. RI	Follow-on RI
Lead	NA	NA	1.34
Lead (F)	<4.470	1.630	30.0

LF7GW01		
Analyte	Initial RI	Suppl. RI
Lead	NA	NA
Lead (F)	<4.470	<1.260

FIGURE GENERATED BY MONTGOMERY WATSON FOR USACE

4





Depth	
Lead	17 f

Program	Follo
Depth	
Lead	54

LF7SB4	
Program	Follo
Depth	
Lead	<5
Lead (F)	<5

Analyte	St
Lead	NA
Lead (F)	1.74

LF7SB	
Program	Foll
Depth	
Lead	17

Analyte	St
Lead	NA
Lead (F)	<1.

LF7SB	
Program	Foll
Depth	
Lead	7

Program	Foll
Depth	
Lead	13C
Lead (F)	NA

CFLSSE	
Program	Foll
Depth	
Lead	1.7

V01	
Suppl. RI	Follow-on RI
2.260	<0.735

LF7GW07		
Analyte	Suppl. RI	Follow-on RI
Lead	NA	11.0
Lead (F)	13.200	<0.735



Program	Follow-on RI	Follow-on RI	Follow-on RI
Depth	6.5'	16.5'	25.0'
Lead	17 f	<5	12 f

LF7SB21			
Program	Follow-on RI	Follow-on RI	Follow-on RI
Depth	6.5'	16.0'	25.0'
Lead	54	<5	<5

LF7SB42	
Program	Follow-on RI
Depth	9.0'
Lead	<5
Lead (F)	<5

LF7GW10		
Analyte	Suppl. RI	Follow-on RI
Lead	NA	3.42
Lead (F)	1.740	<0.735

LF7SB19	
Program	Follow-on RI
Depth	6.0'
Lead	17

LF7GW09		
Analyte	Suppl. RI	Follow-on RI
Lead	NA	10.7 f
Lead (F)	<1.260	0.880

LF7SB18	
Program	Follow-on RI
Depth	14.0'
Lead	7

LF7SB17		
Program	Follow-on RI	Follow-on RI
Depth	7.0'	8.0'
Lead	130 an	<5
Lead (F)	NA	<5

CFLSSB03	
Program	Follow-on RI
Depth	7.0'
Lead	1.71 f



**DAMES & MOORE**

**CRISSY FIELD STUDY AREA  
FILL SITE 7 AND SEWER LIFT STATIONS  
CONCENTRATIONS OF LEAD IN GROUNDWATER**

PFS26522

Date: January 1997

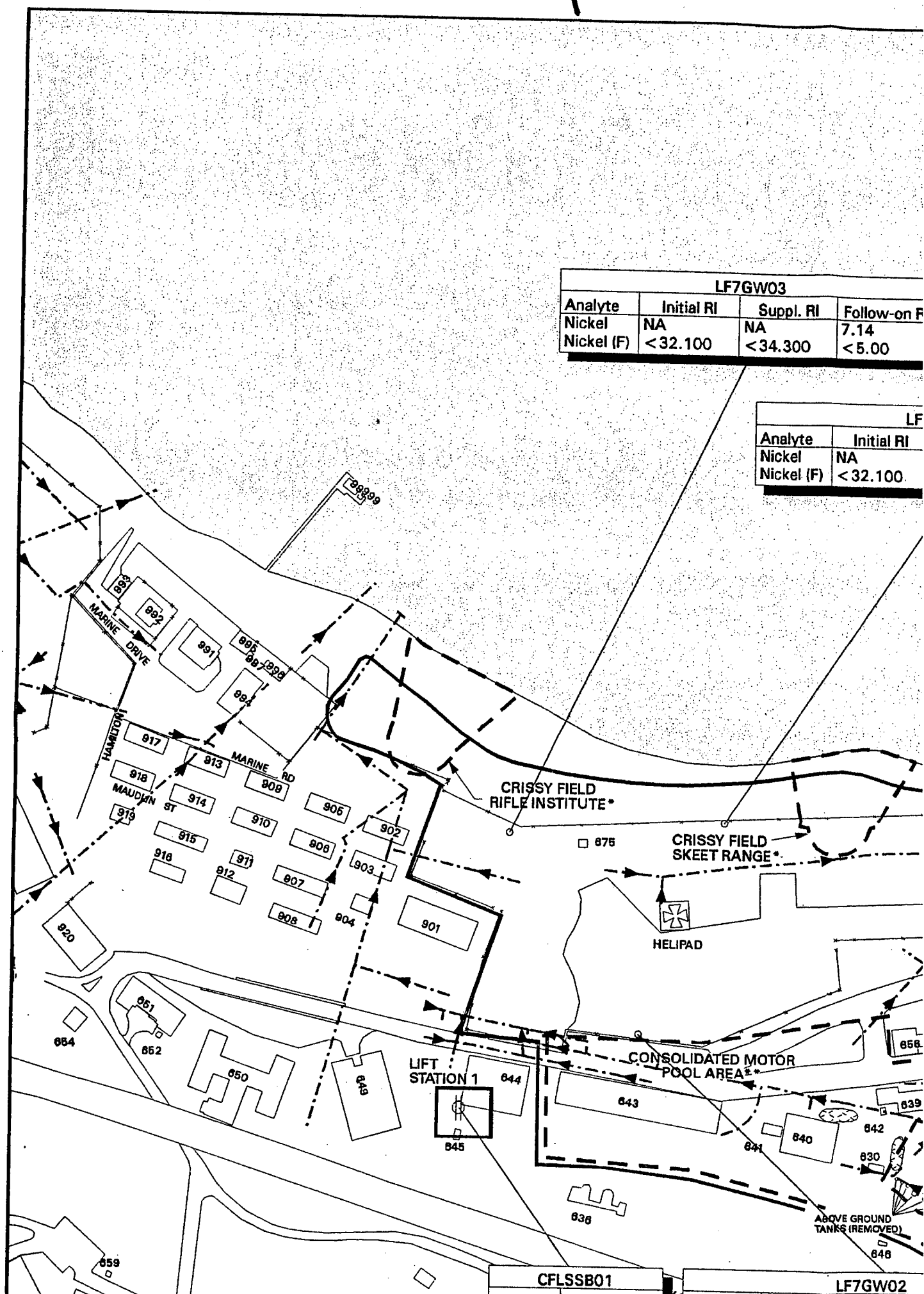
Figure 5.5-38

6



LF7GW03			
Analyte	Initial RI	Suppl. RI	Follow-on F
Nickel	NA	NA	7.14
Nickel (F)	<32.100	<34.300	<5.00

LF	
Analyte	Initial RI
Nickel	NA
Nickel (F)	<32.100



CFLSSB01

LF7GW02



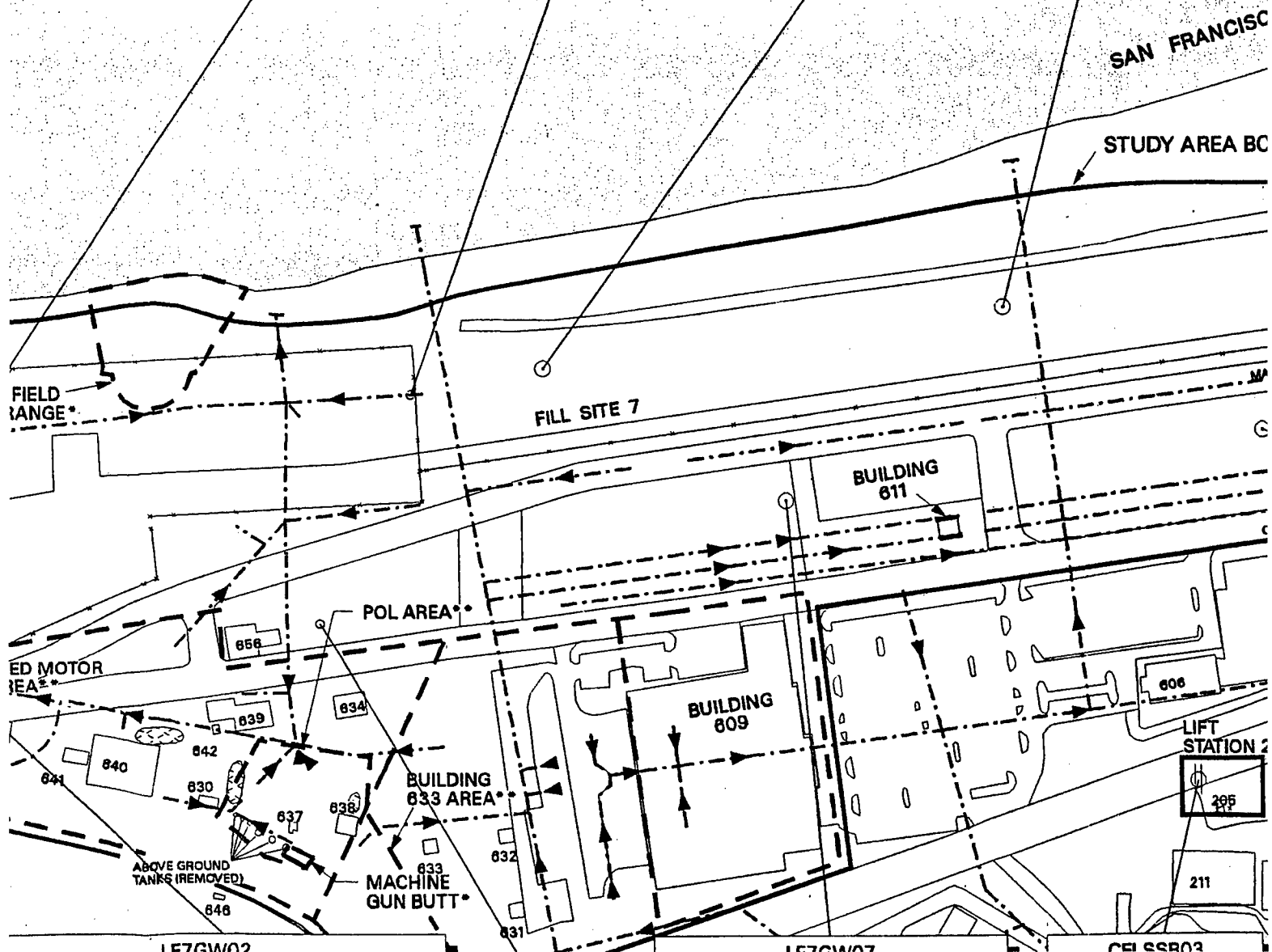
GW03	
Suppl. RI	Follow-on RI
NA	7.14
<34.300	<5.00

LF7GW05			
Analyte	Initial RI	Suppl. RI	Follow-on RI
Nickel	NA	NA	10.9
Nickel (F)	<32.100	<34.300	15.4

LF7GW08		
Analyte	Suppl. RI	Follow-on
Nickel	<34.300	6.83
Nickel (F)	<34.300	5.80

LF7GW04			
Analyte	Initial RI	Suppl. RI	Follow-on RI
Nickel	NA	NA	34.1
Nickel (F)	<32.100	<34.300	<5.00

LF7GW06		
Analyte	Suppl. RI	Follow-on RI
Nickel	<34.300	11.2
Nickel (F)	<34.300	<5.00





8
Follow-on RI
6.83
5.80

**EXPLANATION**

- MONITORING WELL
- ⊙ MONITORING WELL WITH SOIL SAMPLES
- ⊕ SOIL BORING WITH DISCRETE GROUNDWATER SAMPLE
- TEST PIT
- > STORM DRAIN WITH FLOW DIRECTION
- ▨ STAINED AREAS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/L}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. (F) INDICATES FILTERED SAMPLE.

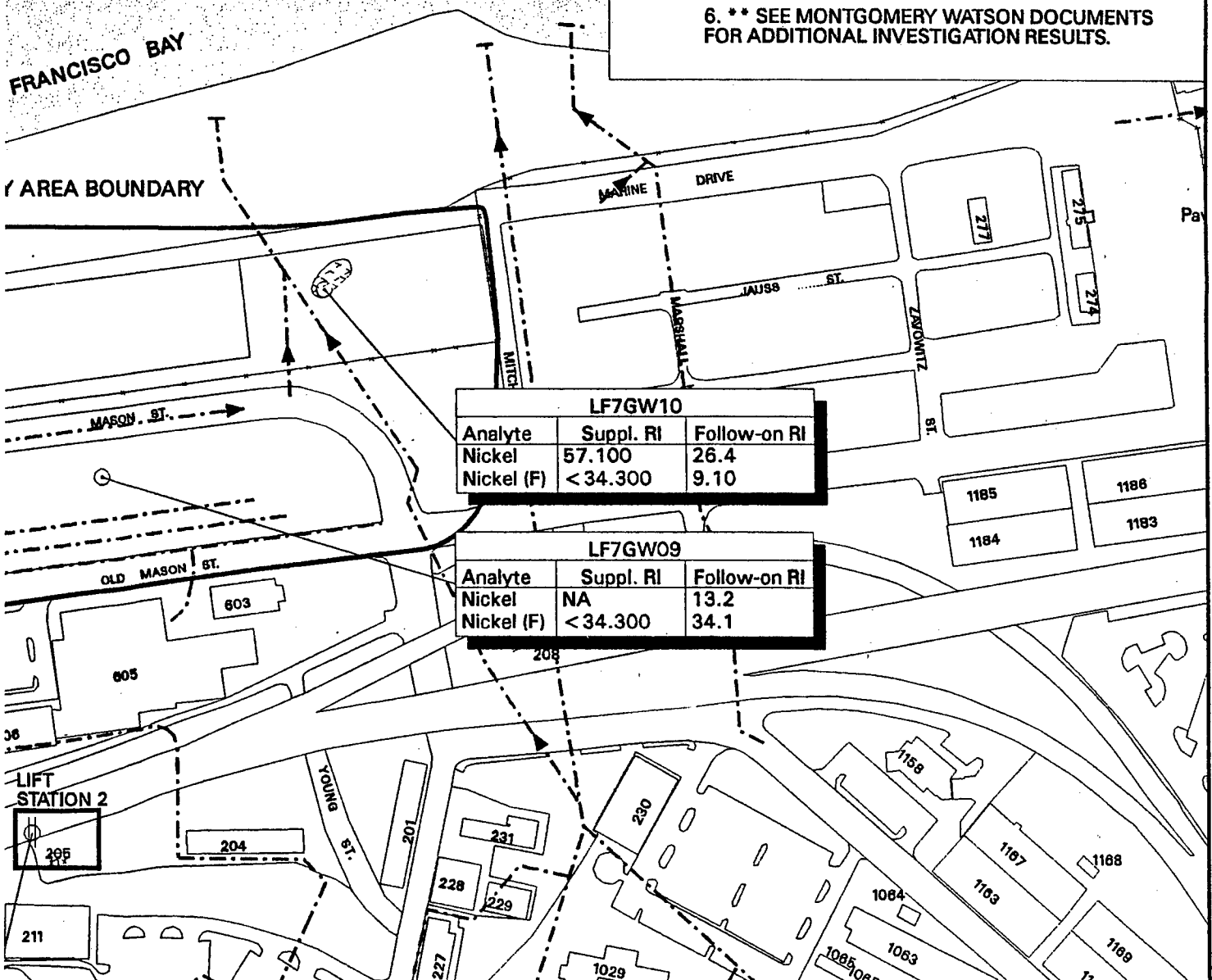
4. NA = NOT ANALYZED

5. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.

6. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.

FRANCISCO BAY

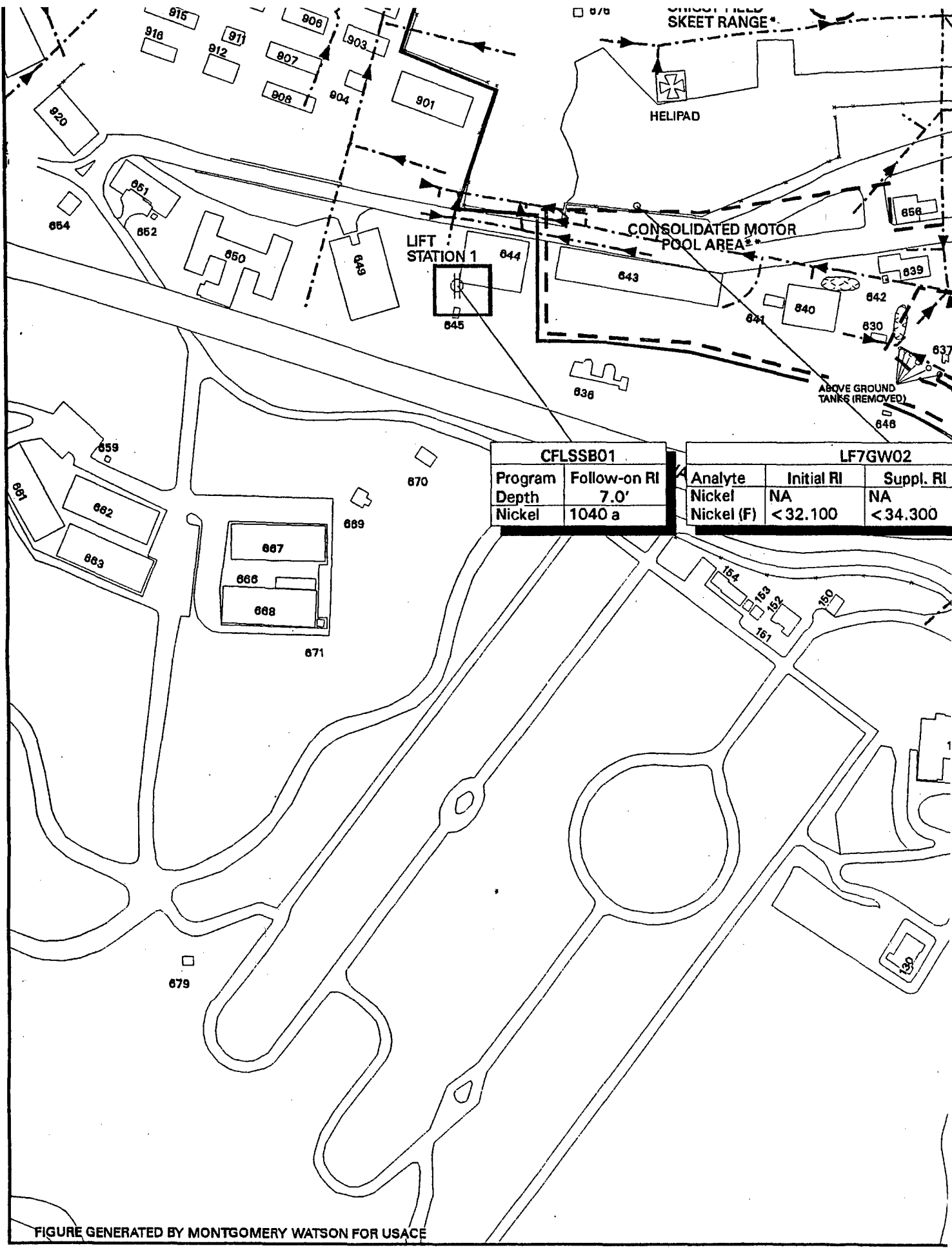
AREA BOUNDARY



LF7GW10		
Analyte	Suppl. RI	Follow-on RI
Nickel	57.100	26.4
Nickel (F)	< 34.300	9.10

LF7GW09		
Analyte	Suppl. RI	Follow-on RI
Nickel	NA	13.2
Nickel (F)	< 34.300	34.1



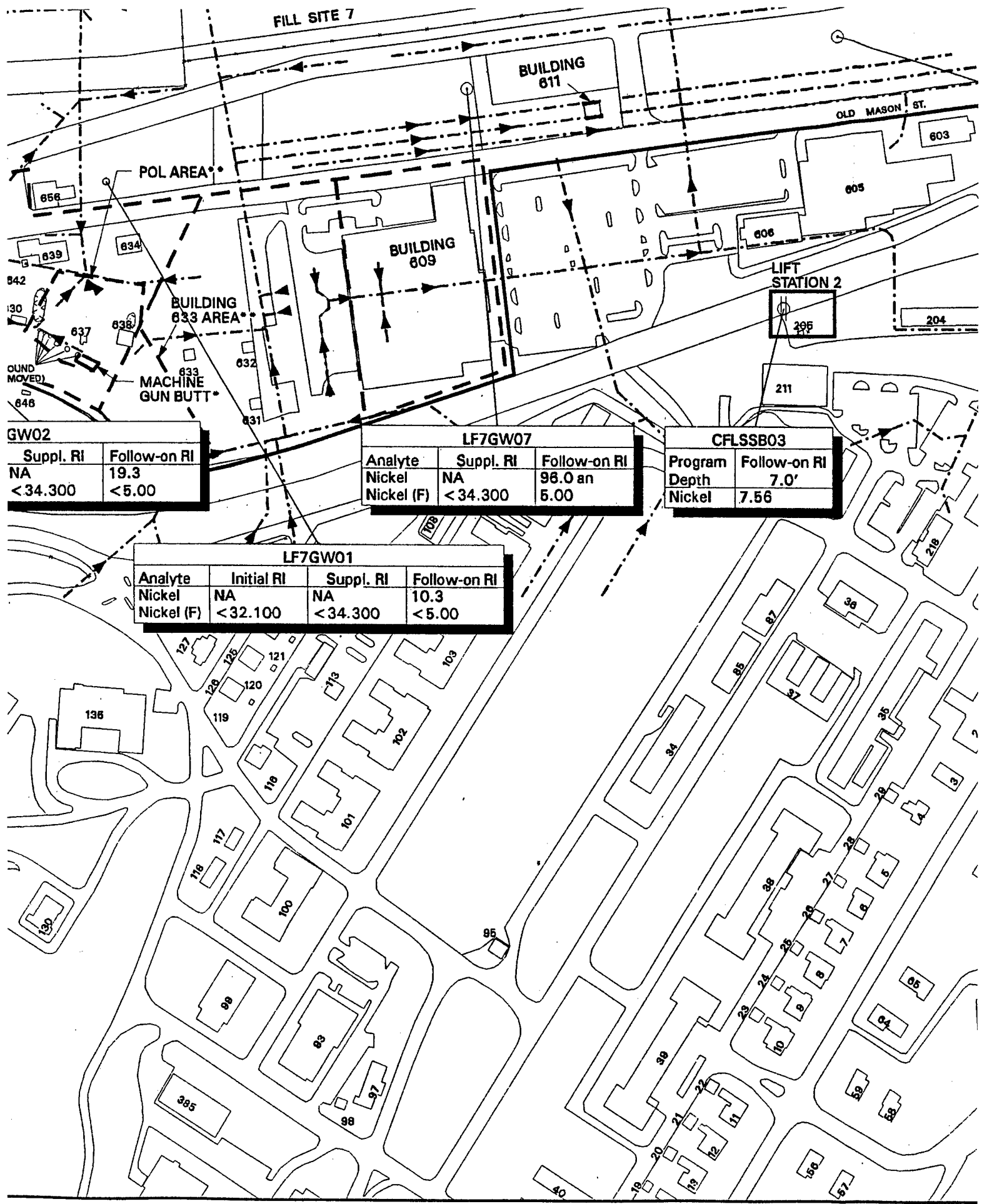


26 Dec 96 16:14:57 Thursday, base\_11x17\_v5.mxd, plotfile base\_C81USST2\_WH\_16.gm, PSE

FIGURE GENERATED BY MONTGOMERY WATSON FOR USACE

4





GW02	
Suppl. RI	Follow-on RI
NA	19.3
< 34.300	< 5.00

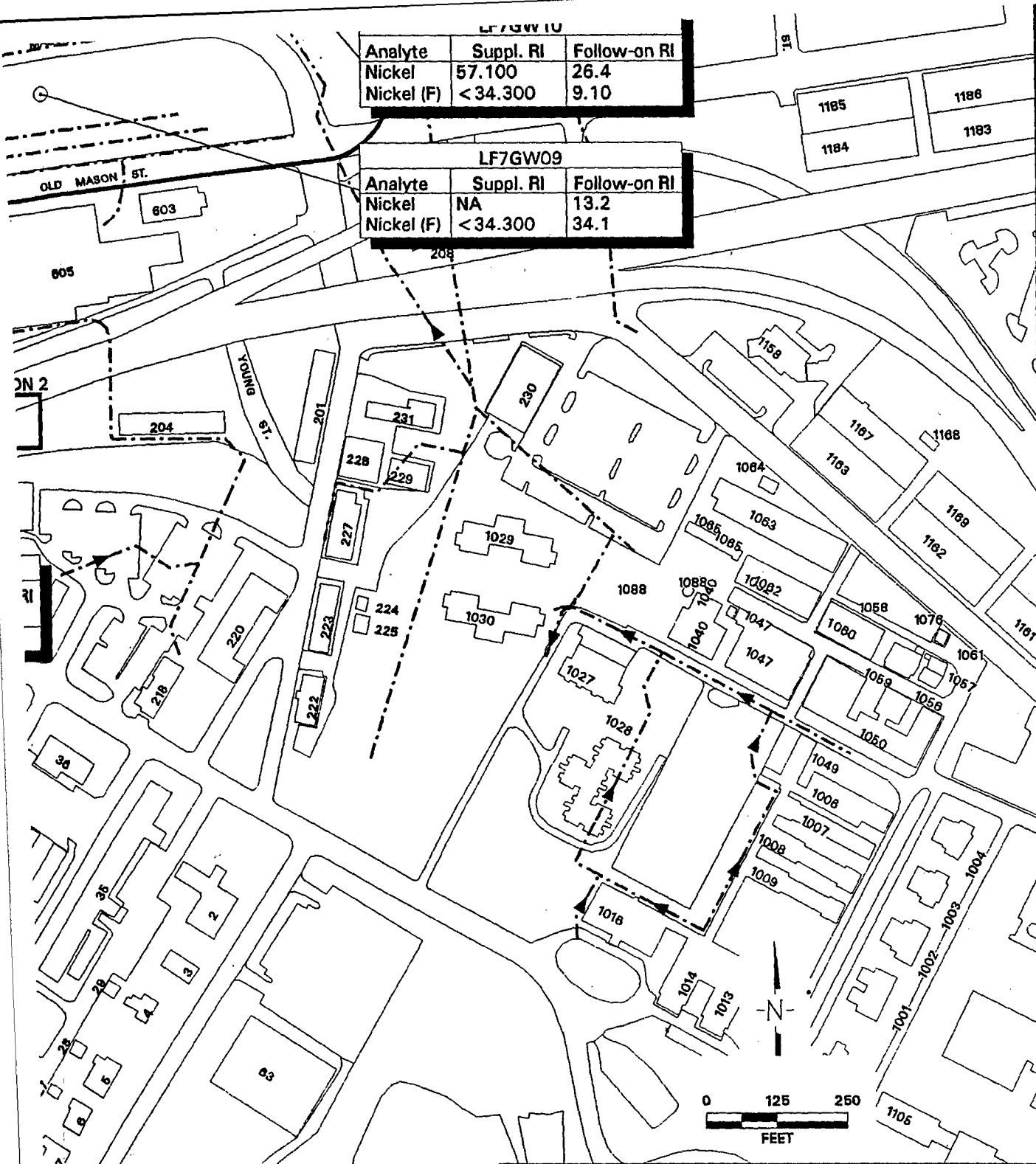
LF7GW07		
Analyte	Suppl. RI	Follow-on RI
Nickel	NA	96.0 and
Nickel (F)	< 34.300	5.00

CFLSSB03	
Program	Follow-on RI
Depth	7.0'
Nickel	7.56

LF7GW01			
Analyte	Initial RI	Suppl. RI	Follow-on RI
Nickel	NA	NA	10.3
Nickel (F)	< 32.100	< 34.300	< 5.00



1185	1186
1184	1183


**DAMES & MOORE**

**PFS26520**

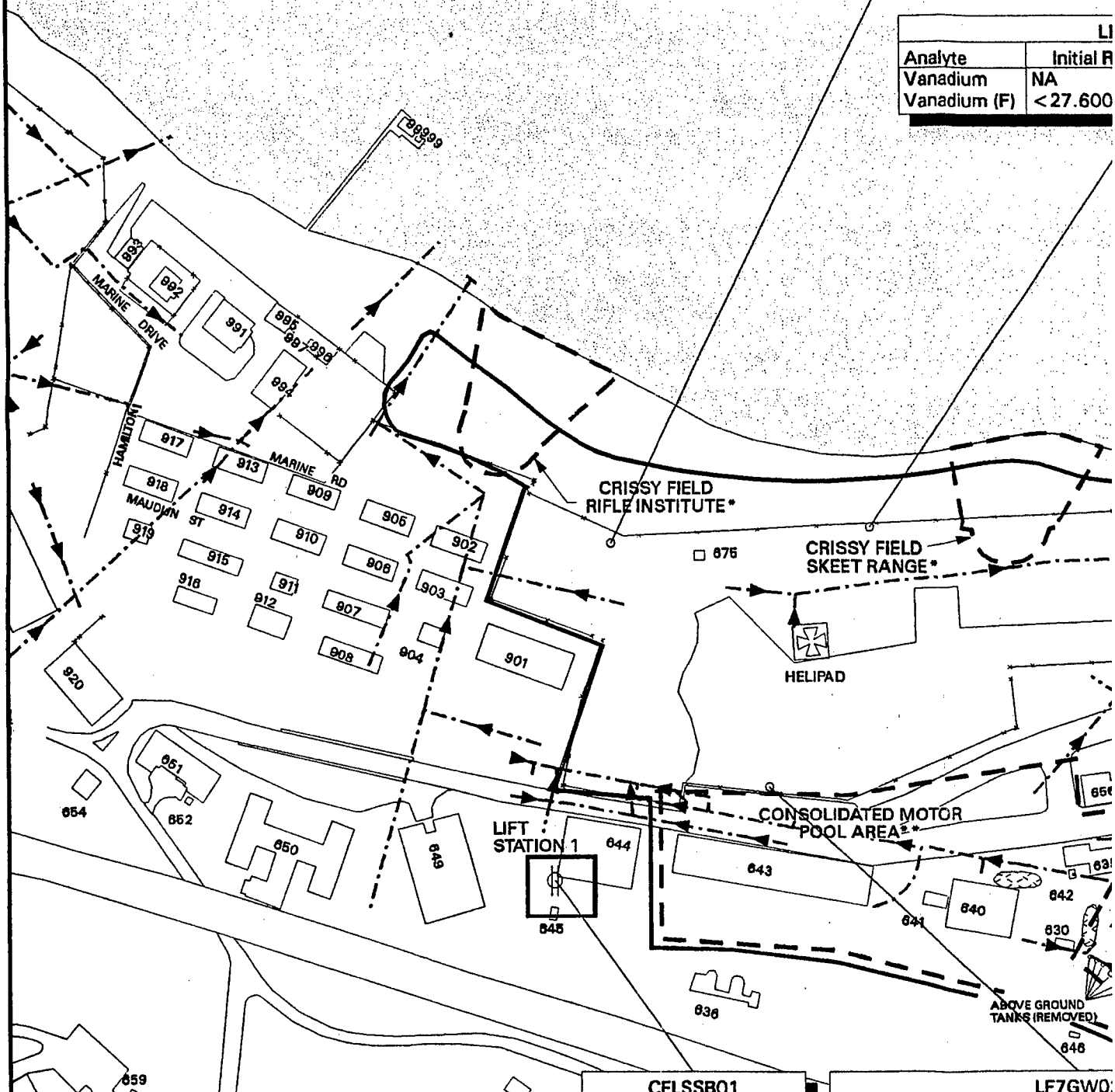
**Date: January 1997**

**Figure 5.5-39**



LF7GW03			
Analyte	Initial RI	Suppl. RI	Follow-on F
Vanadium	NA	NA	9.00
Vanadium (F)	<27.600	<11.000	<4.00

LI	
Analyte	Initial R
Vanadium	NA
Vanadium (F)	<27.600



CFLSSB01

LF7GW03



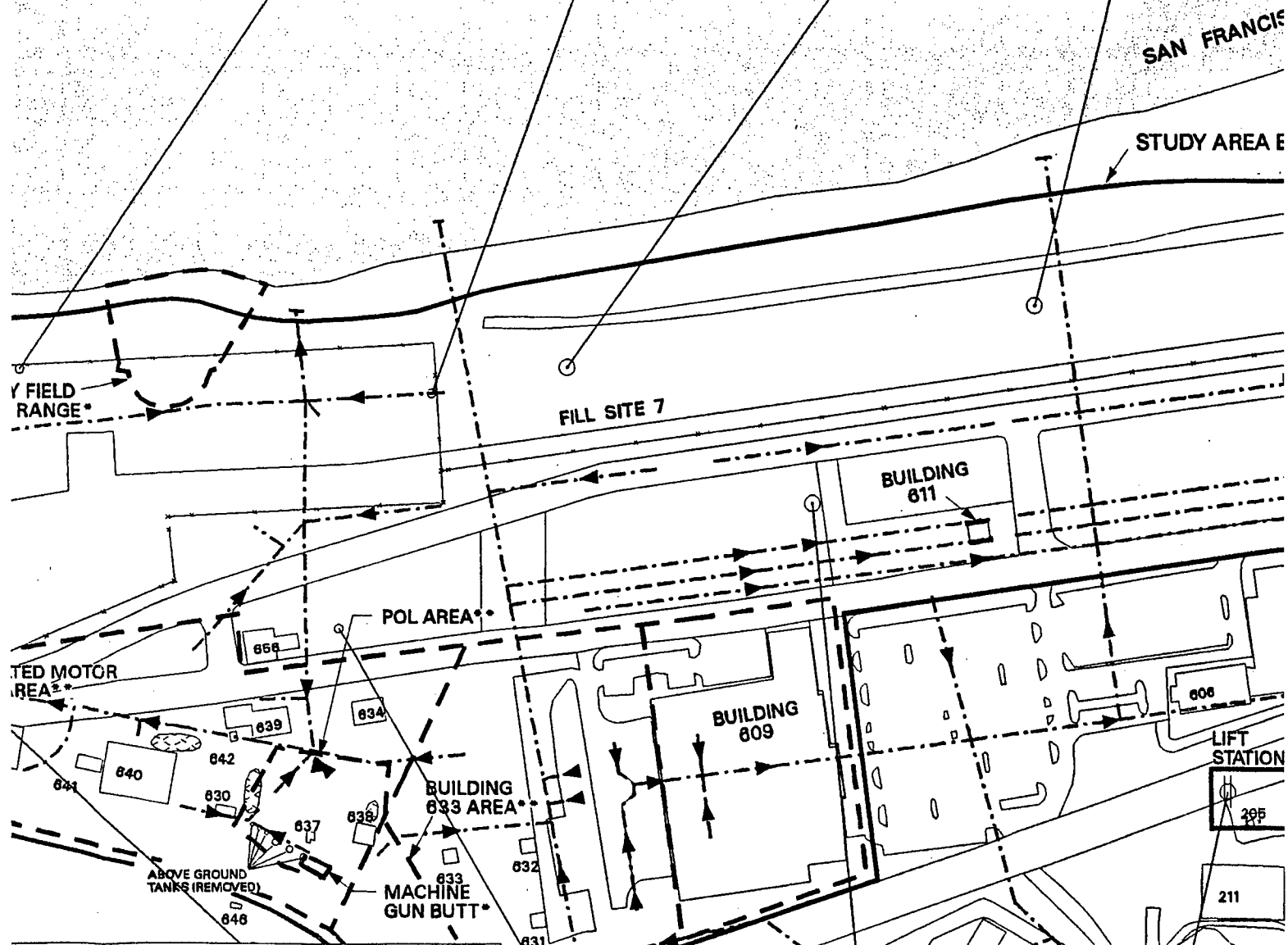
7GW03		
Suppl. RI	Follow-on RI	
NA	9.00	
< 11.000	< 4.00	

LF7GW05			
Analyte	Initial RI	Suppl. RI	Follow-on RI
Vanadium	NA	NA	10.0
Vanadium (F)	< 27.600	< 11.000	5.00

LF7GW08		
Analyte	Suppl. RI	Follow-on RI
Vanadium	14.500	6.00
Vanadium (F)	12.400	< 4.0

LF7GW04			
Analyte	Initial RI	Suppl. RI	Follow-on RI
Vanadium	NA	NA	< 4.00
Vanadium (F)	< 27.600	11.700	< 4.00

LF7GW06		
Analyte	Suppl. RI	Follow-on RI
Vanadium	11.600	9.00
Vanadium (F)	< 11.000	< 4.00





Follow-on RI
6.00
< 4.00

**EXPLANATION**

- MONITORING WELL
- ⊙ MONITORING WELL WITH SOIL SAMPLES
- ⊗ SOIL BORING WITH DISCRETE GROUNDWATER SAMPLE
- TEST PIT
- ▶— STORM DRAIN WITH FLOW DIRECTION
- ▨ STAINED AREAS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/L}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. (F) INDICATES FILTERED SAMPLE.

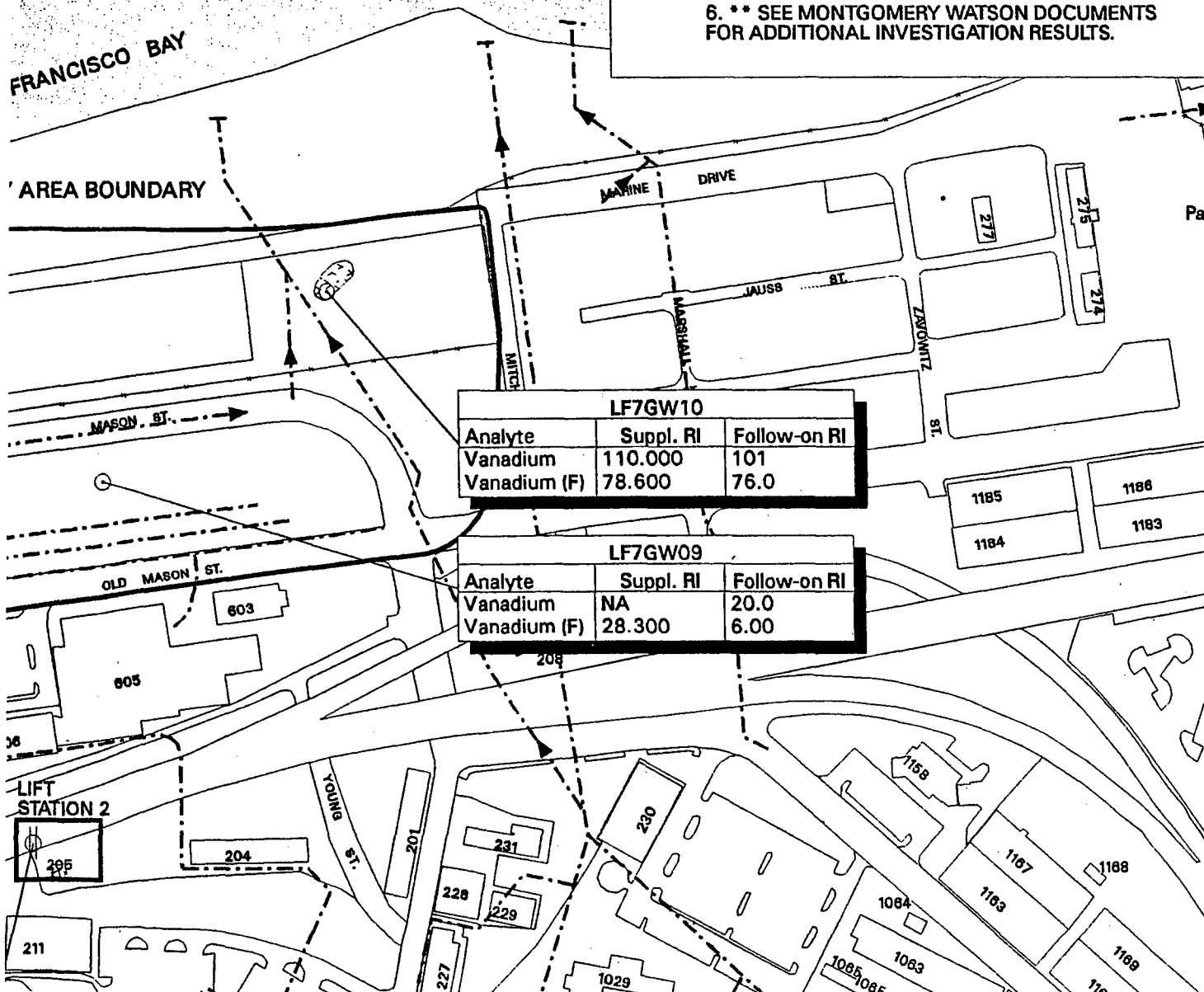
4. NA = NOT ANALYZED

5. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.

6. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.

FRANCISCO BAY

AREA BOUNDARY

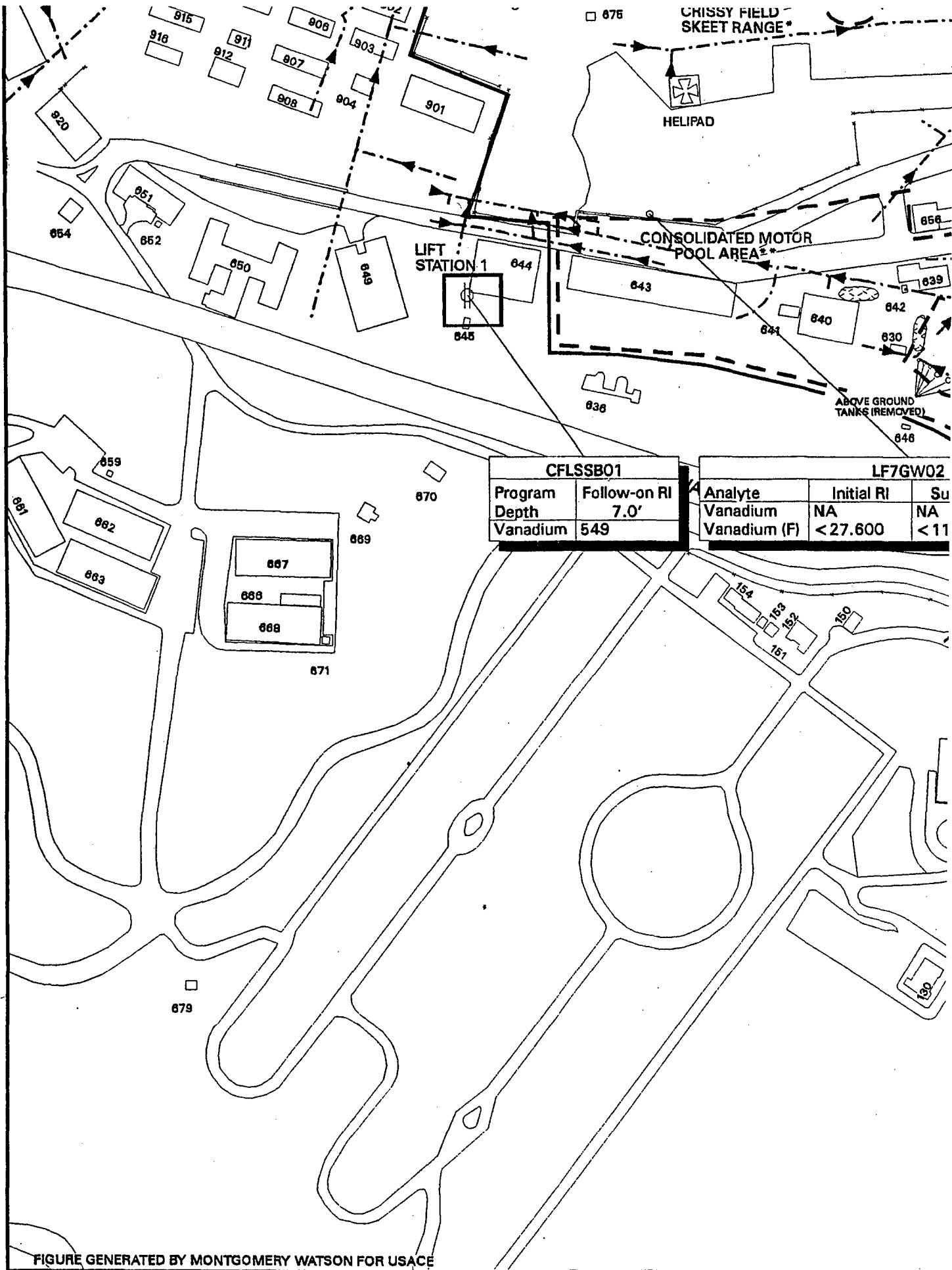


LF7GW10		
Analyte	Suppl. RI	Follow-on RI
Vanadium	110.000	101
Vanadium (F)	78.600	76.0

LF7GW09		
Analyte	Suppl. RI	Follow-on RI
Vanadium	NA	20.0
Vanadium (F)	28.300	6.00



26 Dec 96 16:16:59 Thursday, base\_11x17\_96.mil, plotfile base\_CRISSY2\_WH\_20.gra, P82



CFLSSB01	
Program	Follow-on RI
Depth	7.0'
Vanadium	549

LF7GW02		
Analyte	Initial RI	Su
Vanadium	NA	NA
Vanadium (F)	< 27.600	< 11

FIGURE GENERATED BY MONTGOMERY WATSON FOR USACE

4



FILL SITE 7

BUILDING 611

OLD MASON ST.

POL AREA

BUILDING 609

BUILDING 633 AREA

LIFT STATION 2

MACHINE GUN BUTT

F7GW02		
RI	Suppl. RI	Follow-on RI
NA		8.00
< 11.000		< 4.00

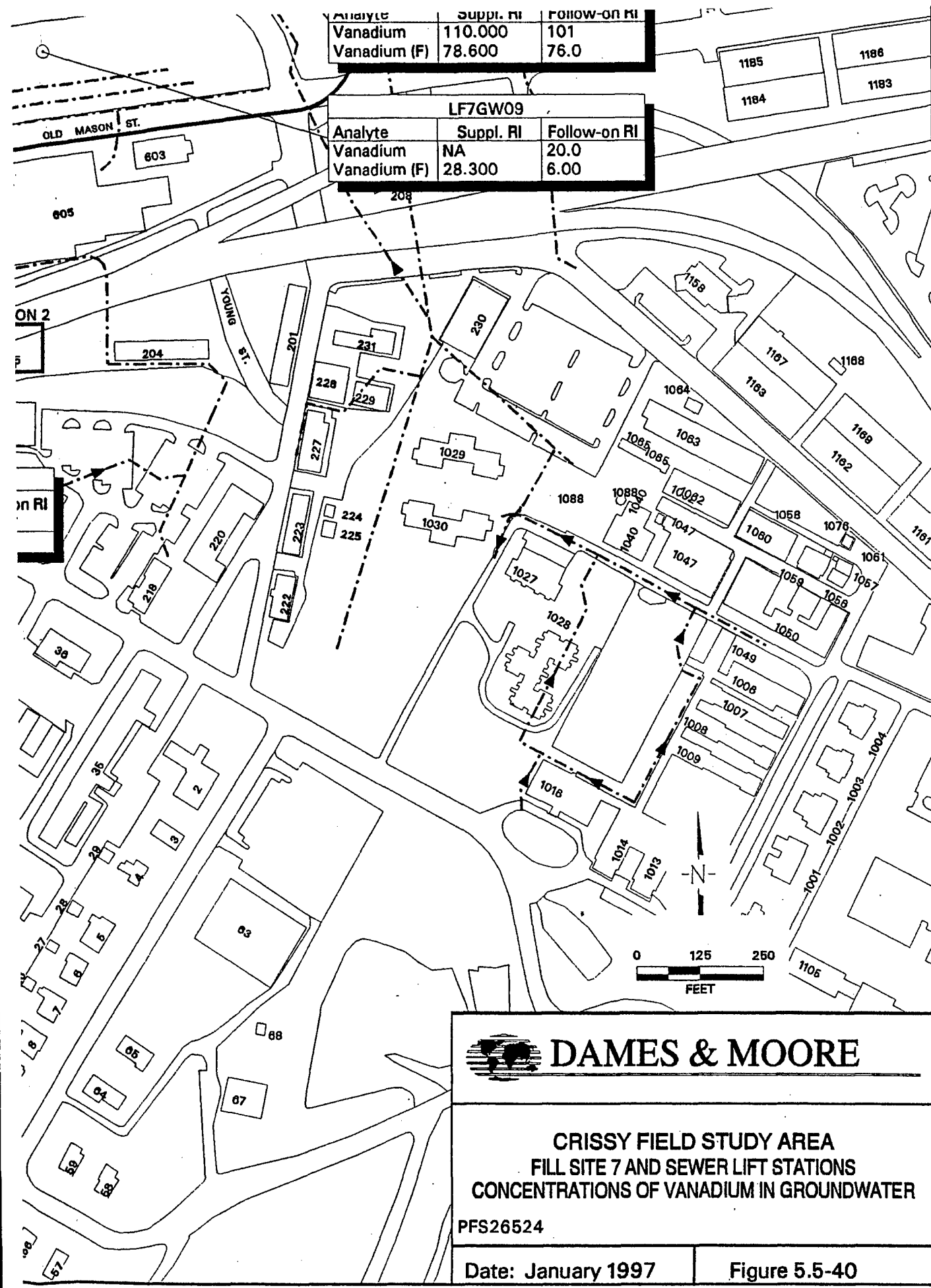
LF7GW07		
Analyte	Suppl. RI	Follow-on RI
Vanadium	NA	11.0
Vanadium (F)	< 11.000	< 4.00

CFLSSB03	
Program	Follow-on RI
Depth	7.0'
Vanadium	< 4.00

LF7GW01			
Analyte	Initial RI	Suppl. RI	Follow-on RI
Vanadium	NA	NA	7.00
Vanadium (F)	< 27.600	< 11.000	< 4.00



1185	1186
1184	1183

A detailed street map of a residential area in New York City. The map shows several streets, including Old Mason St. at the top, Young St. running diagonally, and a street labeled 'ON 2' on the left. Buildings are represented by black outlines and many are labeled with numbers. A dashed line with an arrow points to a building labeled '218'. Other labeled buildings include 603, 605, 204, 201, 220, 222, 223, 227, 36, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100. The map also shows a 'ON RI' label and a 'P' label. A dashed line with an arrow points to a building labeled '218'.

**DAMES & MOORE**

**PFS26524**

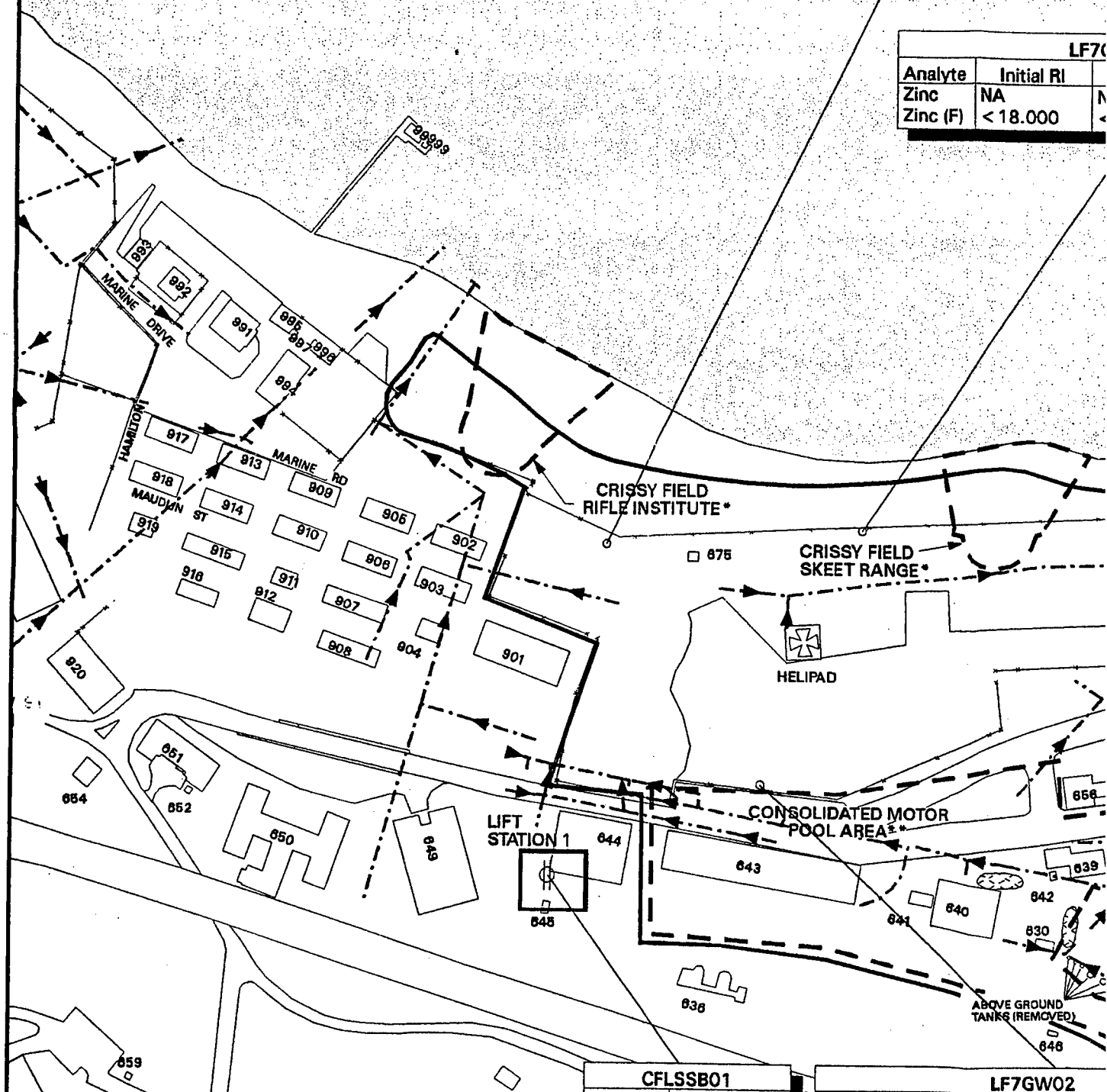
**Date: January 1997**

**Figure 5.5-40**



LF7GW03			
Analyte	Initial RI	Suppl. RI	Follow-on RI
Zinc	NA	NA	19.0 f
Zinc (F)	< 18.000	< 21.100	7.00

LF7C		
Analyte	Initial RI	
Zinc	NA	
Zinc (F)	< 18.000	





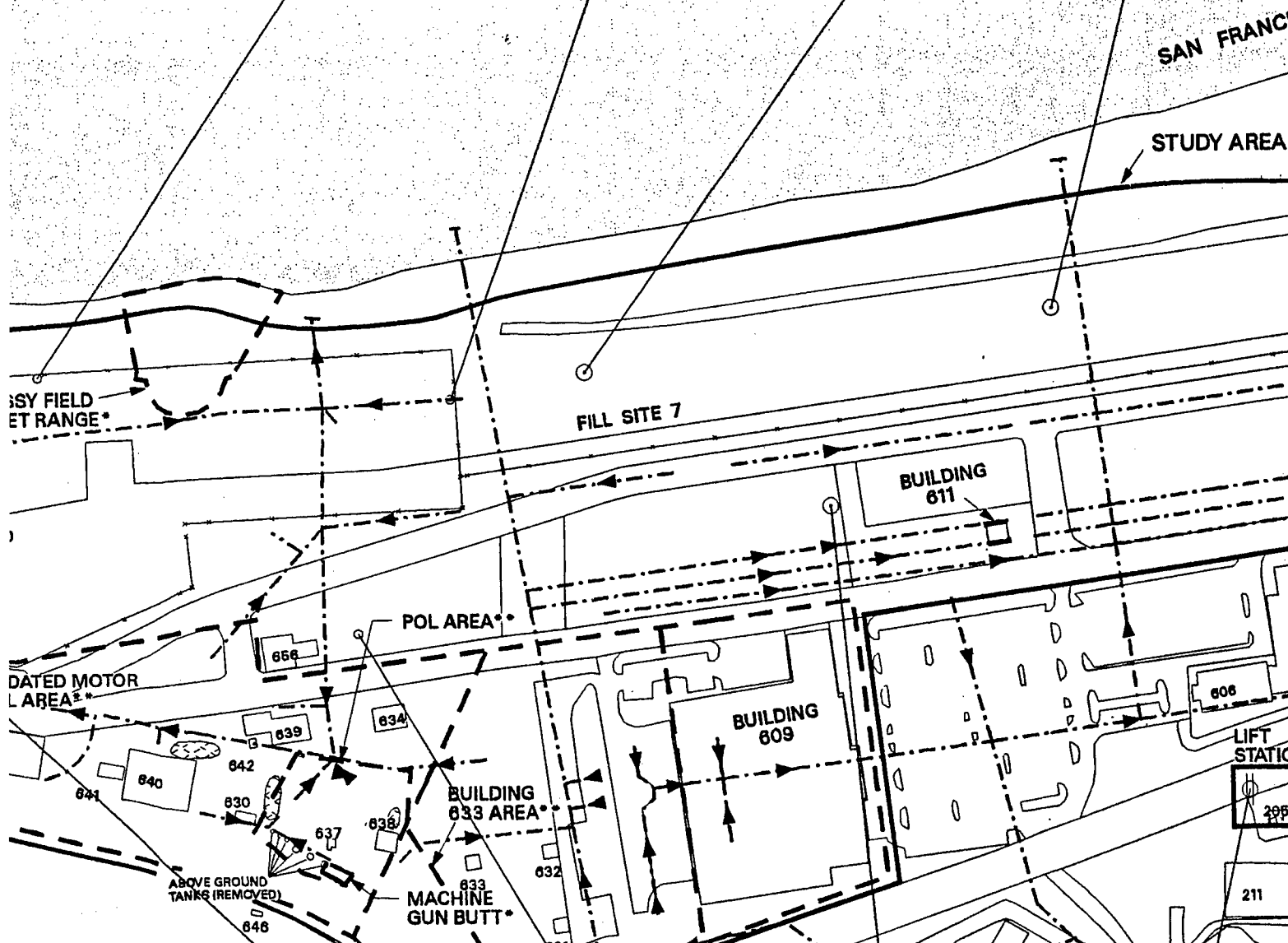
F7GW03	
Suppl. RI	Follow-on RI
NA	19.0 f
< 21.100	7.00

LF7GW05			
Analyte	Initial RI	Suppl. RI	Follow-on RI
Zinc	NA	NA	6.00
Zinc (F)	< 18.000	< 21.100	6.00

LF7GW08		
Analyte	Suppl. RI	Follow-on RI
Zinc	< 21.100	26.0
Zinc (F)	< 21.100	< 4.00

LF7GW04			
Analyte	Initial RI	Suppl. RI	Follow-on RI
Zinc	NA	NA	7.00
Zinc (F)	< 18.000	< 21.100	< 4.00

LF7GW06		
Analyte	Suppl. RI	Follow-on RI
Zinc	15.100 d	71.0
Zinc (F)	< 21.100	< 4.00





08
Follow-on RI
26.0
< 4.00

**EXPLANATION**

- MONITORING WELL
- ⊙ MONITORING WELL WITH SOIL SAMPLES
- ⊕ SOIL BORING WITH DISCRETE GROUNDWATER SAMPLE
- TEST PIT
- > STORM DRAIN WITH FLOW DIRECTION
- ▨ STAINED AREAS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/L}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS ARE INCLUDED AT THE END OF THIS FIGURES SECTION.

3. (F) INDICATES FILTERED SAMPLE.

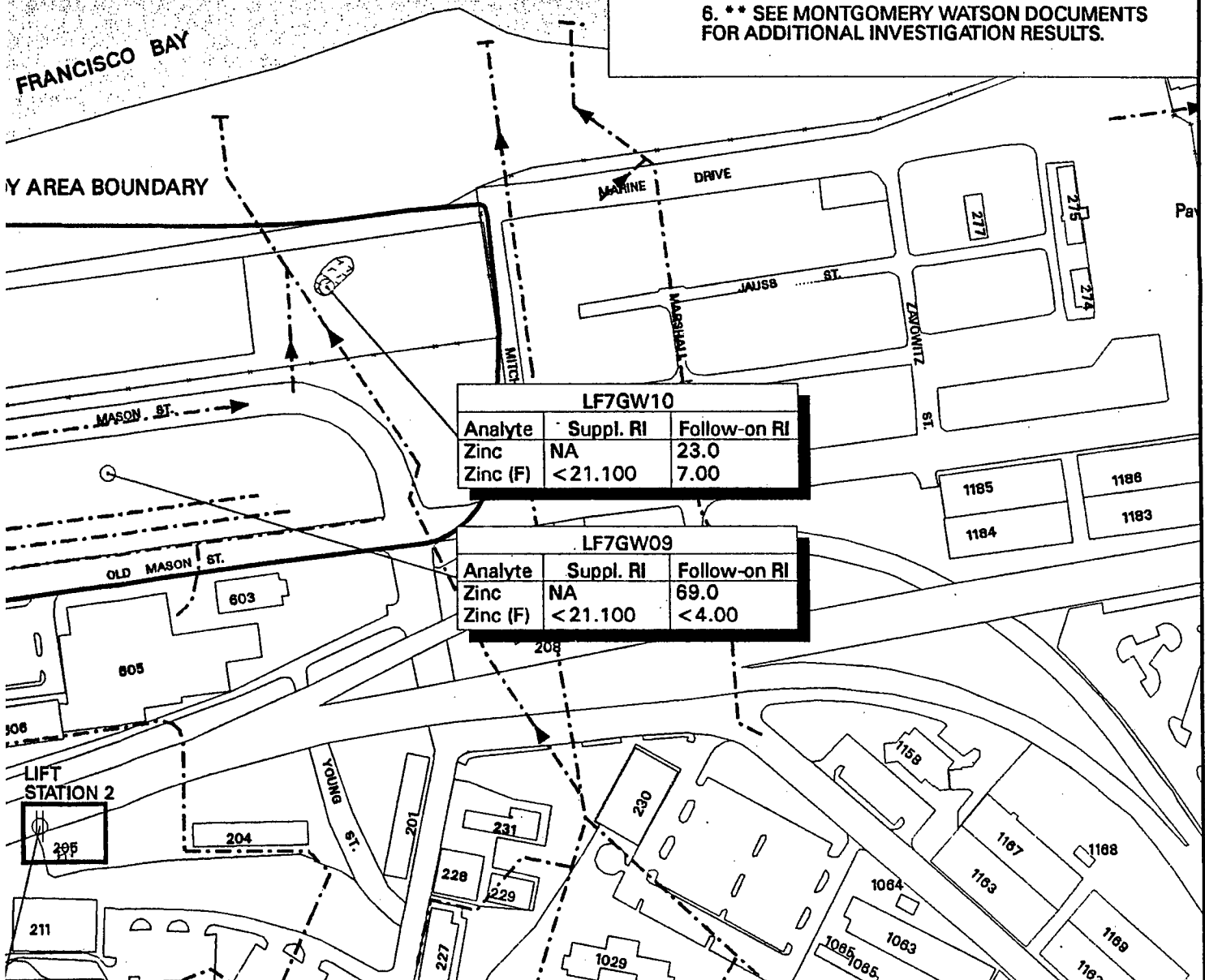
4. NA = NOT ANALYZED

5. \* ADDITIONAL INVESTIGATIONS PERFORMED BY MONTGOMERY WATSON.

6. \*\* SEE MONTGOMERY WATSON DOCUMENTS FOR ADDITIONAL INVESTIGATION RESULTS.

FRANCISCO BAY

Y AREA BOUNDARY



LF7GW10		
Analyte	Suppl. RI	Follow-on RI
Zinc	NA	23.0
Zinc (F)	< 21.100	7.00

LF7GW09		
Analyte	Suppl. RI	Follow-on RI
Zinc	NA	69.0
Zinc (F)	< 21.100	< 4.00



26 Dec 96 16:19:23 Thursday, base\_11x17\_v3.mxd, plotfile base\_CRISSY2\_WHL\_21.gra, PSE

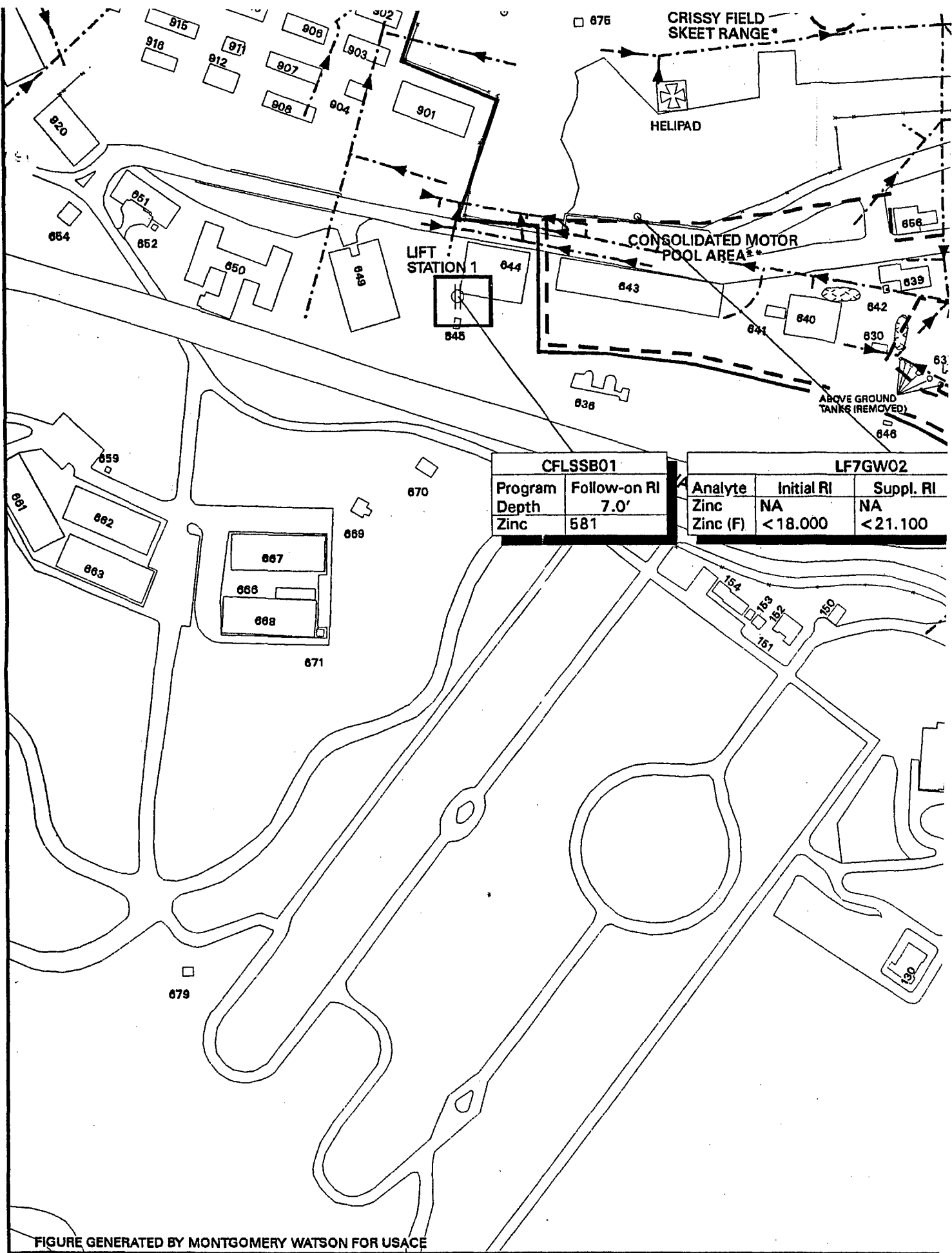
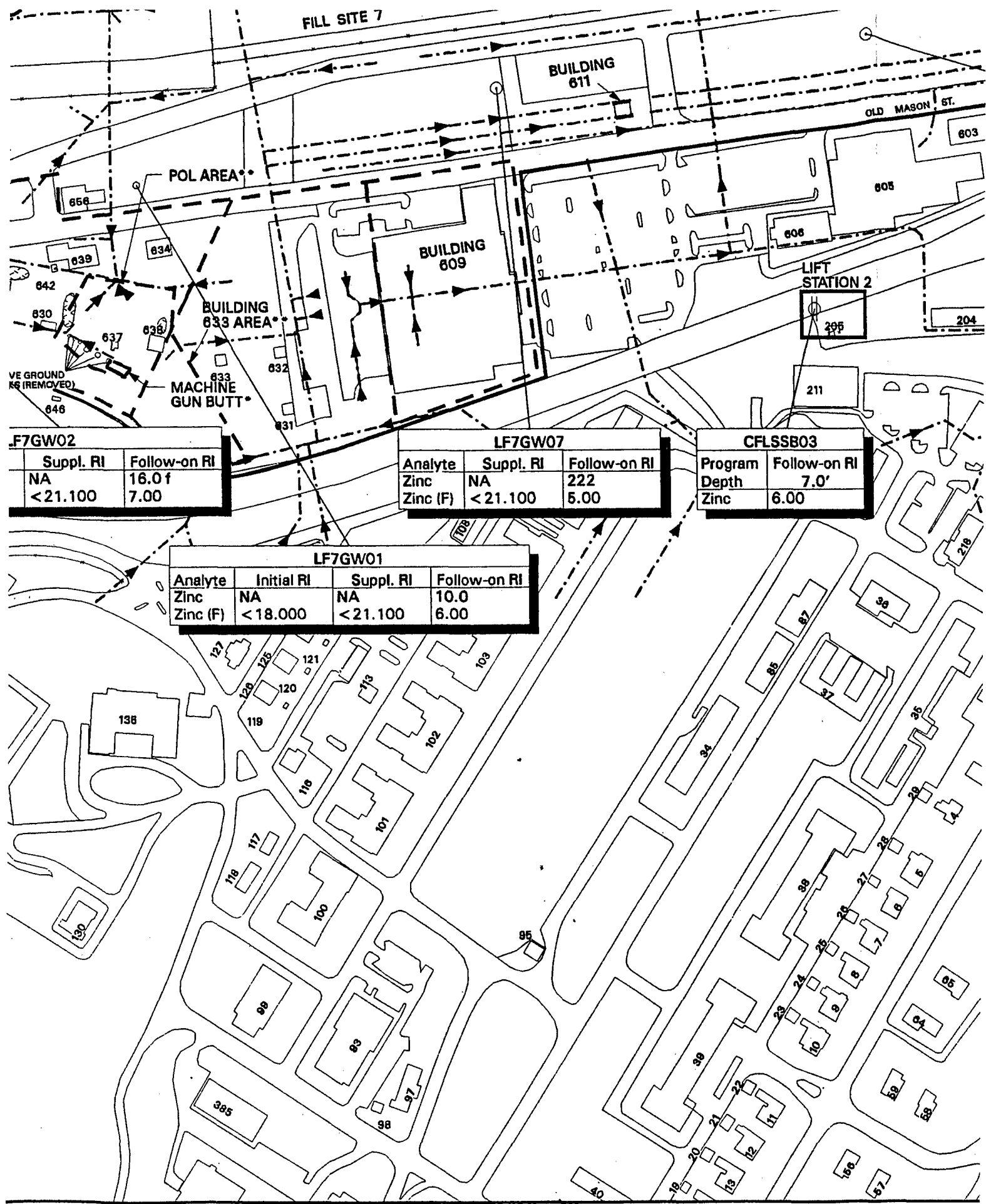


FIGURE GENERATED BY MONTGOMERY WATSON FOR USACE





F7GW02	
Suppl. RI	Follow-on RI
NA	16.0 f
< 21.100	7.00

LF7GW07		
Analyte	Suppl. RI	Follow-on RI
Zinc	NA	222
Zinc (F)	< 21.100	5.00

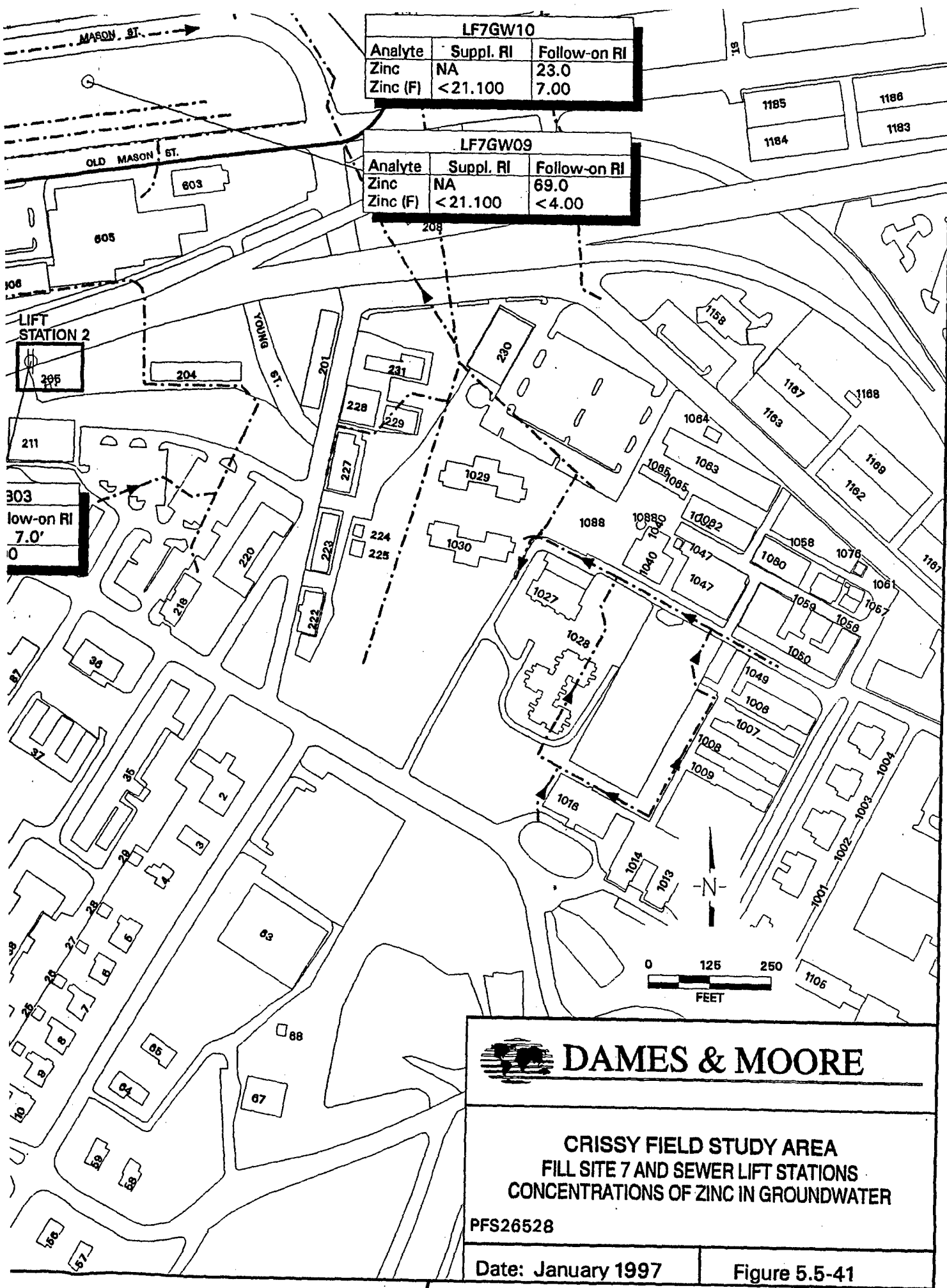
CFLSSB03	
Program	Follow-on RI
Depth	7.0'
Zinc	6.00

LF7GW01			
Analyte	Initial RI	Suppl. RI	Follow-on RI
Zinc	NA	NA	10.0
Zinc (F)	< 18.000	< 21.100	6.00



LF7GW10		
Analyte	Suppl. RI	Follow-on RI
Zinc	NA	23.0
Zinc (F)	<21.100	7.00

LF7GW09		
Analyte	Suppl. RI	Follow-on RI
Zinc	NA	69.0
Zinc (F)	<21.100	<4.00



**DAMES & MOORE**

**CRISSY FIELD STUDY AREA  
FILL SITE 7 AND SEWER LIFT STATIONS  
CONCENTRATIONS OF ZINC IN GROUNDWATER**

PFS26528

Date: January 1997

Figure 5.5-41

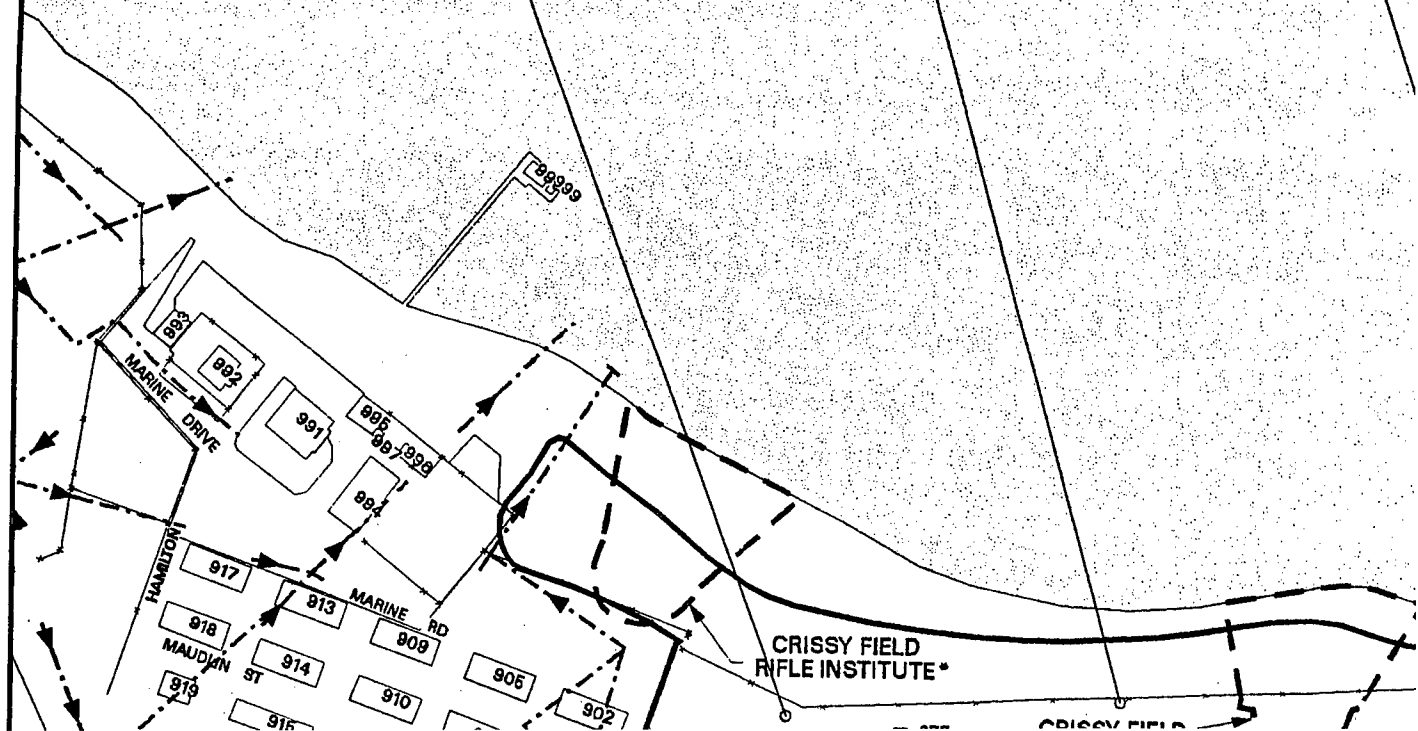


LF7GW04			
Analyte	Initial RI	Suppl. RI	Follow-on RI
Vinyl Chloride	< 12.000	< 0.160	< 0.393

Analyte	Initial RI	Suppl. RI	Follow-on RI
Vinyl Chloride	< 12.000	< 0.160	< 0.393

LF7GW03			
Analyte	Initial RI	Suppl. RI	Follow-on RI
Vinyl Chloride	< 12.000	< 0.160	< 0.393

LF7GW05			
Analyte	Initial RI	Suppl. RI	Follow-on RI
Vinyl Chloride	< 12.000	< 0.160	< 0.393





LF7GW06		
Analyte	Suppl. RI	Follow-on RI
Vinyl Chloride	<0.160	<0.5

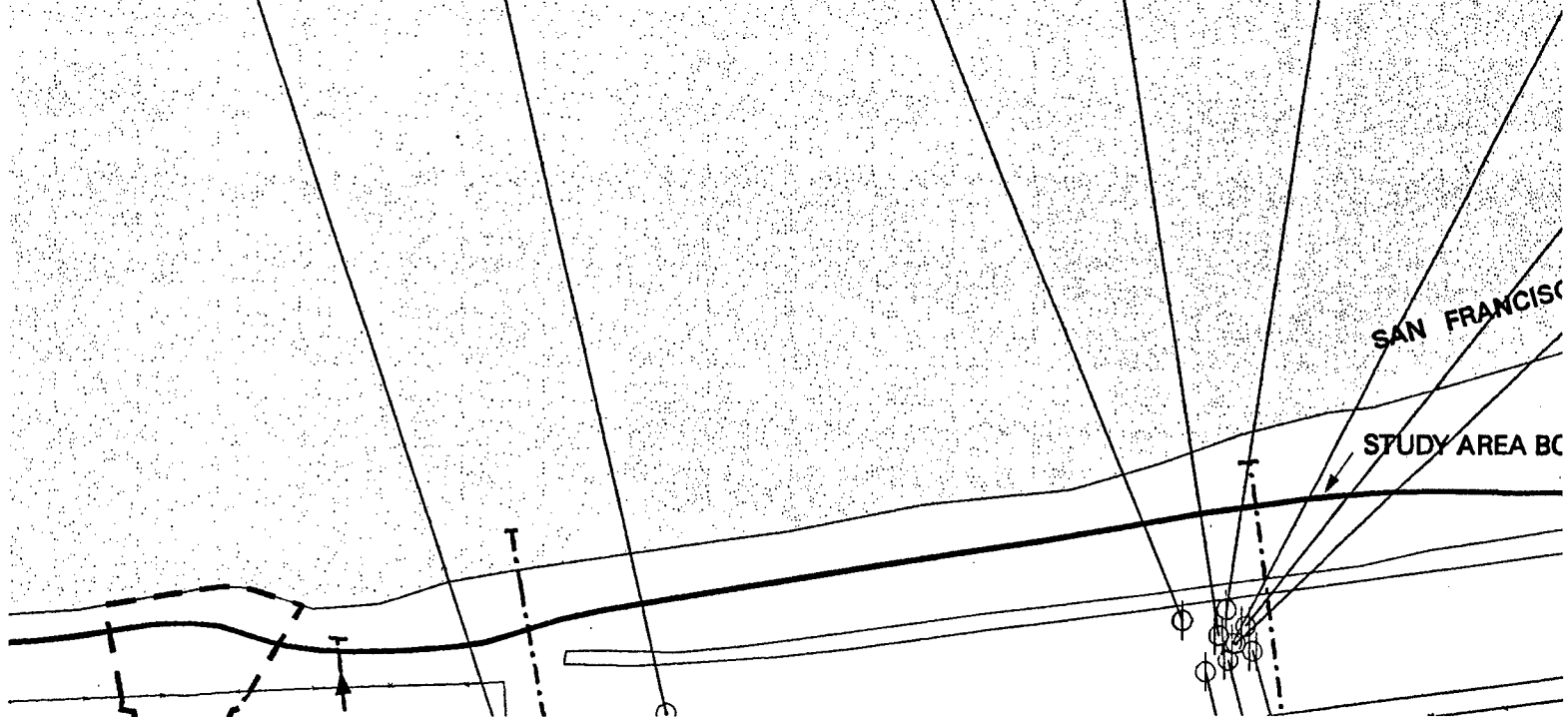
LF7SB23			
Program	Follow-on RI	Follow-on RI	Follow-on RI
Depth	6.5'	18.5'	28.0'
Vinyl Chloride	0.8	<0.5	<0.5

Program
Depth
Vinyl Chloride

LF7GW05		
RI	Suppl. RI	Follow-on RI
00	<0.160	<0.393

LF7SB39	
Program	Follow-on RI
Depth	5.5'
Vinyl Chloride	<0.5

LF7SB40	
Program	Follow-on RI
Depth	5.5'
Vinyl Chloride	<0.5





**EXPLANATION**

DISCRETE GROUNDWATER SAMPLE  
MONITORING WELL



MONITORING WELL WITH SOIL  
SAMPLES



SOIL BORING WITH DISCRETE  
GROUNDWATER SAMPLE



TEST PIT



STORM DRAIN WITH FLOW DIRECTION



STAINED AREAS

NOTES: 1. ALL CONCENTRATIONS REPORTED AS  $\mu\text{g/L}$ .

2. DATA FOOTNOTE AND LITHOLOGY KEYS  
ARE INCLUDED AT THE END OF THIS FIGURES  
SECTION.

3. (F) INDICATES FILTERED SAMPLE.

4. NA = NOT ANALYZED

5. \* ADDITIONAL INVESTIGATIONS PERFORMED  
BY MONTGOMERY WATSON.

6. \*\* SEE MONTGOMERY WATSON DOCUMENTS  
FOR ADDITIONAL INVESTIGATION RESULTS.

**LF7SB20**

Program	Follow-on RI	Follow-on RI	Follow-on RI
Depth	6.5'	16.5'	25.0'
Vinyl Chloride	<0.5	<0.5	<0.5

**LF7SB24**

Program	Follow-on RI	Follow-on RI	Follow-on RI
Depth	7.5'	17.5'	25.5'
Vinyl Chloride	<0.5	<0.5	<0.5

**LF7GW08**

Analyte	Suppl. RI	Follow-on RI
Vinyl Chloride	<0.160	<0.393

**LF7SB18**

Program	Follow-on RI	Follow-on RI
Depth	14.0'	25.0'
Vinyl Chloride	<0.5	<0.5

**LF7SB19**

Program	Follow-on RI	Follow-on RI	Follow-on RI
Depth	6.0'	13.5'	24.5'
Vinyl Chloride	<0.5	<0.5	<0.5

**LF7GW10**

Analyte	Suppl. RI	Follow-on RI
Vinyl Chloride	<0.160	<0.393

FRANCISCO BAY

AREA BOUNDARY

MAINE DRIVE

JAUSS ST

ZANON ST

MASON ST

Pay



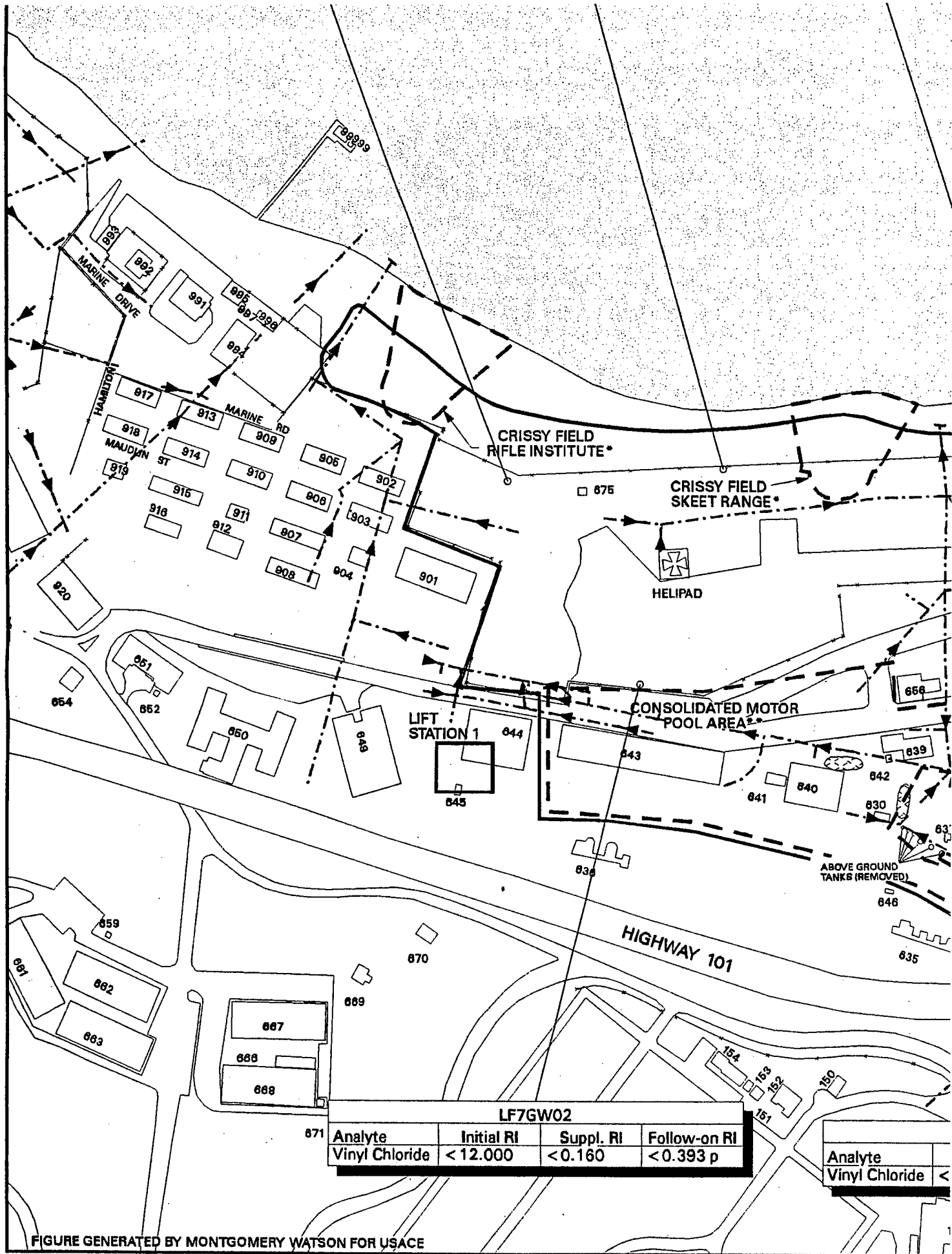
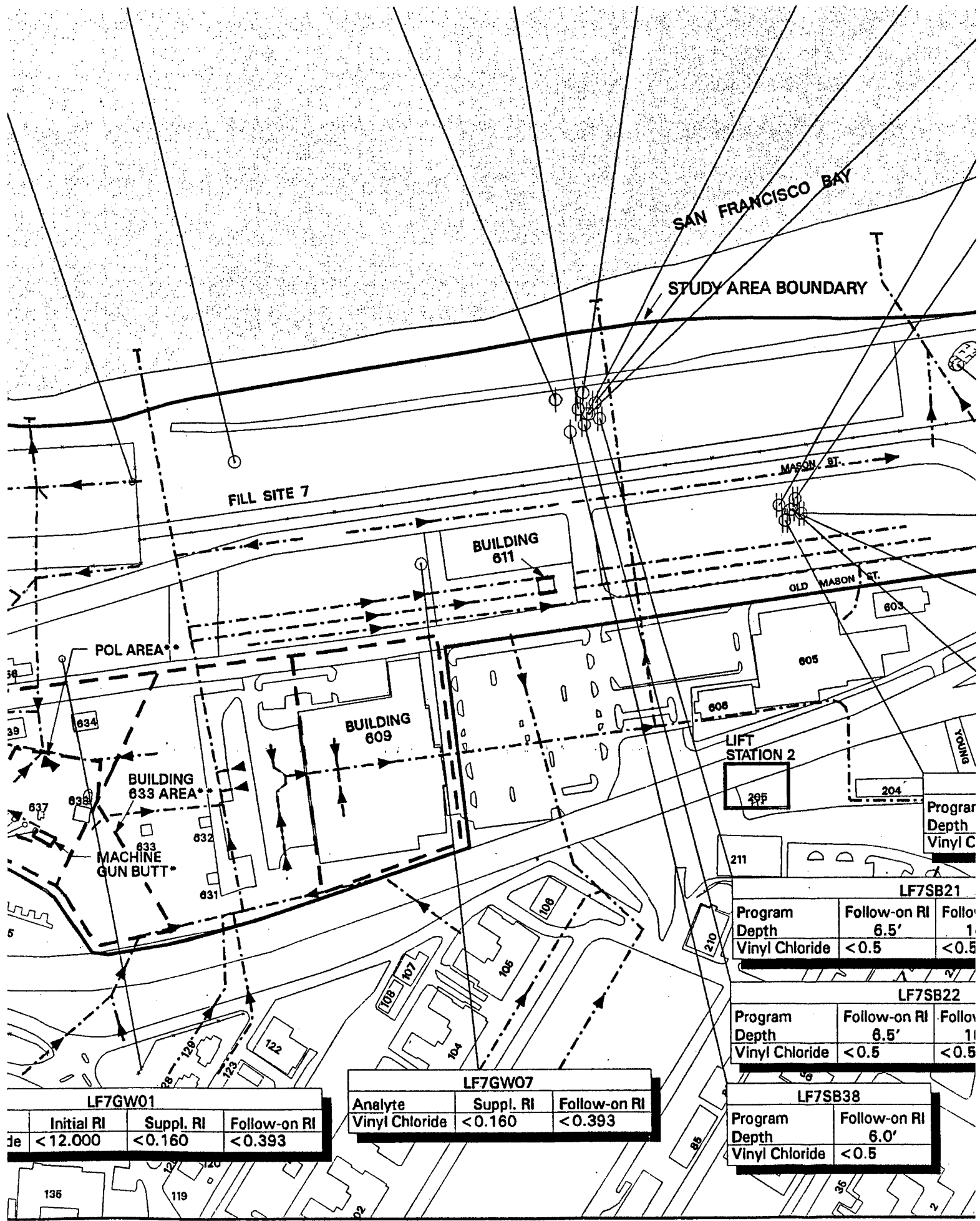


FIGURE GENERATED BY MONTGOMERY WATSON FOR USACE





LF7GW01			
	Initial RI	Suppl. RI	Follow-on RI
de	<12.000	<0.160	<0.393

LF7GW07		
Analyte	Suppl. RI	Follow-on RI
Vinyl Chloride	<0.160	<0.393

LF7SB21		
Program Depth	Follow-on RI	Follow-on RI
6.5'	6.5'	1
Vinyl Chloride	<0.5	<0.5

LF7SB22		
Program Depth	Follow-on RI	Follow-on RI
6.5'	6.5'	1
Vinyl Chloride	<0.5	<0.5

LF7SB38	
Program Depth	Follow-on RI
6.0'	6.0'
Vinyl Chloride	<0.5



LF7SB18		
Program	Follow-on RI	Follow-on RI
Depth	14.0'	25.0'
Vinyl Chloride	<0.5	<0.5

LF7SB19			
Program	Follow-on RI	Follow-on RI	Follow-on RI
Depth	6.0'	13.5'	24.5'
Vinyl Chloride	<0.5	<0.5	<0.5

LF7GW10		
Analyte	Suppl. RI	Follow-on RI
Vinyl Chloride	<0.160	<0.393

LF7SB16		
Program	Follow-on RI	Follow-on RI
Depth	14.5'	24.5'
Vinyl Chloride	<0.5	<0.5

LF7GW09		
Analyte	Suppl. RI	Follow-on RI
Vinyl Chloride	3.400	<0.393

LF7SB25		
Program	Follow-on RI	Follow-on RI
Depth	14.4'	24.2'
Vinyl Chloride	<0.5	<0.5

LF7SB17			
Program	Follow-on RI	Follow-on RI	Follow-on RI
Depth	7.0'	14.5'	24.5'
Vinyl Chloride	<0.5	<0.5	<0.5

LF7SB21			
	Follow-on RI	Follow-on RI	Follow-on RI
	6.5'	16.0'	25.0'
ride	<0.5	<0.5	<0.5

LF7SB22			
	Follow-on RI	Follow-on RI	Follow-on RI
	6.5'	16.5'	25.0'
ride	<0.5	<0.5	<0.5

LF7SB38	
	Follow-on RI
	6.0'
ide	<0.5



**DAMES & MOORE**

**CRISSY FIELD STUDY AREA  
FILL SITE 7 AND SEWER LIFT STATIONS  
CONCENTRATIONS OF VINYL CHLORIDE IN GROUNDWATER**

PFS26526

Date: January 1997

Figure 5.5-42